THE LONDON
Medical, Surgical, and Pharmaceutical
REPOSITORY.

No. 8. AUGUST 1, 1814. Vol. II.

HALF-YEARLY REPORT
OF THE
PROGRESS OF MEDICAL SCIENCE,
FROM JANUARY TO JUNE, 1814.

(Continued from page 39.)

Nosological Table of Diseases, Synoptical View of the State of the Weather, and Observations on Morbid Effects arising simultaneously with Atmospherical Variations, from December 1813 to May 1814.

After an interval of two thousand years, from the establishment by Hippocrates of what may reasonably be denominated Medical Science to the present time, it is remarkable that a sufficient number of data or facts have not been recorded, for laying the foundation of a full and convincing theory of diseases, as far as respects their causes and their treatment. If whatever assumes to be a rational medical theory must be founded on a series of actual facts, and not on gratuitous data; and if there is evidently yet a paucity of such facts, any plan which tends to remove this obstacle, by whomsoever projected, or by whatever medium given to the public, deserves, and will receive, a countenance and an approval proportioned to its merit.

By the contributions and assistance of many respectable Practitioners of the British metropolis, a Monthly Register of Diseases has been formed, which promises to promote the advancement of theoretical and practical knowledge, by ascertaining the subsisting connection between the atmosphere and the state of health, and by an accumulation of facts comprehensive enough for the purposes of a rational theory. Important and original as this Register may assume to be on

these two *desiderata* of medical science, there is another point on which it may be considered as not less eminently useful—*the promotion of the study of* Nosology.

From whatever cause arising, whether from the influence of fashion, from inattention to its advantages, or from the prejudices of some able practical writers, *Nosology* has been too generally neglected by the medical students of this country. Without becoming the panegyrists of a branch of medical science which has been inefficient in practice only because it has been defective in execution, and rejected only because it has not had given to it a due deliberation, nothing more will be requisite here, than to state, that, since the publication of this *Register*, a more general feeling of the advantages of nosological arrangement has been excited; and it has become fully understood, that, without the assistance of some methodical distribution of diseases, it is not possible to have an entire and satisfactory view of the relative connections or distinctions of morbid phenomena. Coinciding with this feeling, and to bring still further into action this disposition to value Nosology, we shall attempt to give, in a tabular form, a Nosological arrangement of nearly eighteen thousand cases recorded in the registers of the *Repository* in the six months inclusive, from the 20th of November 1813, to the 19th of May 1814.

In these Tables, an endeavour has been made to follow the valuable, though imperfect, system of Cullen, as far as circumstances allowed; for it has been necessary to admit some novelties on the subject of cutaneous diseases; and it has been found impossible to avoid an incorporation of the nomenclature and arrangement of Willan and Bateman, with that of the *Synopsis Nosologiæ Methodicæ*.

A Nosological Table *of the Cases recorded in the* Monthly Registers *of the* Diseases *of* London, *between the 20th of November* 1813, *and the 19th of May* 1814.

CLASS I. PYREXIÆ. *ORDO* 1. Febres.	Nov. Dec.	Dec. Jan.	Jan. Feb.	Feb. March	March April	April May	Total.	Fatal.
Intermittentes	5	14	23	22	36	31	131	
Continuæ	48	63	91	141	164	110	617	3
Typhus*	14	12	6	10	15	11	68	12

* Although *Typhus* be but a genus of the section *Continuæ* of the Order *Febres*, as well as *Synocha* and *Synochus*, which we have merged in the section, yet we have given it a distinct place; because to note Fever in a form so frequently contagious, is of infinite importance to the health of the Public.—*Editors*.

ORDO 2. PHLEGMASIÆ.	Nov. Dec.	Dec. Jan.	Jan. Feb.	Feb. March	March April	April May	Total.	Fatal.
Phlogosis	—	—	—	—	1	—	1	
Ophthalmia	43	43	59	60	82	50	337	
Phrenitis	—	9	7	4	4	7	31	5
Cynanche *Tonsillaris*	42	56	79	105	112	99	493	
—— *maligna*	4	9	12	8	11	4	48	1
—— *Trachealis*	6	4	7	4	8	10	39	3
—— *Pharyngea*	—	—	—	—	1	—	1	1
—— *Parotidea*	10	10	14	20	29	6	89	
Pneumonia	97	119	145	147	101	88	677	52
Phthisis*	23	35	40	49	60	36	243	72
Carditis	—	3	—	1	5	4	13	2
Peritonitis	5	3	12	19	17	23	79	7
Gastritis	4	1	—	2	3	7	17	2
Enteritis	7	9	9	12	17	8	62	10
Hepatitis	18	35	28	33	41	43	198	5
Splenitis	3	1	—	3	2	—	9	
Nephritis	4	4	7	7	7	4	33	1
Lithiasis	1	—	2	1	—	3	7	
Cystitis	—	—	—	1	—	—	1	1
Hysteritis	—	—	5	3	1	3	12	
Rheumatismus *Acutus*	59	73	95	96	91	74	485	1
—— *Chronicus*	46	70	121	105	97	106	545	
Cephalæa	—	—	—	2	—	—	2	
Cephalalgia	24	22	55	44	73	56	274	
Odontalgia	—	—	1	—	—	1	2	
Podagra	12	25	27	33	36	19	152	4
ORDO 3. EXANTHEMATA.								
Variola	9	12	11	4	8	27	71	11
Impetigo	1	4	6	13	28	4	56	
Porrigo *larvalis*	6	5	10	6	14	6	47	
—— *scutulata*	7	3	6	5	8	12	41	
—— *favosa*	6	2	4	4	2	2	20	
Ecthyma	7	3	4	8	3	1	26	
Scabies	51	91	72	95	81	74	464	
Varicella	10	17	12	2	30	16	87	
Herpes	13	18	31	28	44	20	154	
Eczema	2	11	6	—	7	4	30	
Aphtha	—	—	2	4	3	1	10	3
—— *lactentium*	7	10	11	13	18	6	65	
—— *gangrenosa*	—	—	—	1	—	—	1	
Miliaria	—	2	3	1	1	3	10	
Rubeola	17	15	18	22	69	122	263	21
Scarlatina *simplex*	8	5	20	20	22	24	101	
—— *anginosa*	4	15	7	14	4	26	70	
—— *maligna*	2	—	4	1	2	6	15	5
Urticaria	3	6	12	10	17	26	74	
Roseola	—	—	—	—	2	—	2	
Purpura	1	2	2	2	—	1	8	1
Erythema *papulatum*	—	—	7	2	4	—	13	1
—— *nodosum*	1	—	—	3	2	3	9	
Erysipelas	17	28	38	61	50	37	231	1
Pemphigus	—	—	—	—	—	1	1	

ORDO 4. Hæmorrhagiæ.	Nov. Dec.	Dec. Jan.	Jan. Feb.	Feb. March	March April	April May	Total.	Fatal.
Epistaxis	—	3	—	—	—	2	5	
Hæmoptoe	10	9	24	27	22	13	105	2
Hæmorrhois	1	10	24	33	32	32	132	
Menorrhagia	17	25	36	30	43	57	208	1
Abortio	2	8	23	23	19	14	89	1
Hæmatæmesis	2	1	2	2	7	6	20	
Hæmaturia	—	—	—	2	—	—	2	
ORDO 5. Profluvia.								
Catarrhus	393	525	393	565	431	284	2593	12
Coryza *maligna*	—	—	—	—	1	—	1	
Leucorrhæa	—	3	28	26	28	28	113	
Dysenteria	13	13	30	17	22	18	113	3
CLASS II. NEUROSES.								
ORDO 1. Comata.								
Apoplexia	7	13	21	19	16	10	86	31
Paralysis	7	13	22	15	14	24	95	5
ORDO 2. Adynamiæ.								
Angina Pectoris	—	—	—	1	—	—	1	
Dyspepsia	74	113	128	199	236	164	914	
Asthenia	26	22	56	56	63	31	254	13
Entrodynia	1	8	7	19	8	20	63	
Hypochondriasis	14	12	9	15	12	15	77	
Chlorosis	10	16	14	17	17	23	97	
Icterus	8	12	14	16	15	22	87	2
Vertigo	15	23	27	26	29	37	157	1
ORDO 3. Spasmi.								
Tetanus	1	1	—	1	1	—	4	
Convulsio	5	21	20	33	28	20	127	20
Chorea	1	2	3	1	1	1	9	
Epilepsia	4	7	5	12	12	13	53	1
Palpitatio	—	—	—	1	—	—	1	
Asthma	93	182	126	183	119	76	779	83
Dyspnœa	38	44	44	55	29	22	232	3
Pertussis†	14	37	78	92	89	44	354	18
Pyrosis	4	9	4	10	15	11	53	
Colica	17	28	39	21	36	18	159	
Cholera	10	6	16	18	28	20	98	
Diarrhœa	49	82	126	108	132	110	607	2
Diabetes	1	1	2	2	5	3	14	
Hysteria	16	13	26	34	34	27	150	
Tic Douloureux	—	1	—	1	—	—	2	
ORDO 4. Vesaniæ.								
Amentia	—	—	—	1	—	—	1	
Mania	—	1	15	13	9	10	48	4
Delirium tremens	—	—	—	—	3	—	3	
CLASS III. CACHEXIÆ.								
ORDO 1. Marcores.								
Tabes	10	9	5	12	12	14	62	9
Atrophia	—	—	—	—	—	2	2	

ORDO 2. INTUMESCENTIÆ.	Nov. Dec.	Dec. Jan.	Jan. Feb.	Feb. March	March April	April May	Total.	Fatal.
AQUOSÆ.								
Anasarca	13	18	15	22	27	30	125	10
Hydrocephalus	4	7	16	22	11	13	73	42
Hydrothorax	14	3	11	10	7	6	51	21
Ascites	4	8	19	12	11	4	58	12
SOLIDÆ.								
Rachitis	1	—	1	3	4	—	9	
ORDO 3. IMPETIGINES.								
Scrofula	33	30	17	30	42	32	184	
Acne	7	3	8	2	2	5	27	
Sycosis *capillitii*	—	1	—	—	—	—	1	
Lepra	3	2	4	2	2	3	16	
Psoriasis	9	15	21	13	18	29	105	
Ichthyosis	—	—	1	—	—	—	1	
Lichen	2	2	2	2	13	6	22	
Prurigo	—	—	—	—	4	1	5	
Morbus Pediculosus	—	—	—	—	1	1	2	
CLASS IV. LOCALES.								
ORDO 2. DYSOREXIÆ APPETITUS ERRONEI.								
Polydypsia	—	—	—	—	1	—	1	
ORDO 4. APOCYNOSES.								
Enuresis	—	5	3	6	3	1	18	
ORDO 5. EPISCHESES.								
Obstipatio	—	3	46	63	58	41	211	2
Ischuria	1	2	6	13	2	9	33	
Dysuria	7	7	20	7	9	5	45	1
Amenorrhœa	19	21	22	30	28	33	153	
ORDO 6. TUMORES.								
Cancer	8	5	4	6	2	2	27	6
Fungus *Hæmatodes*	—	—	—	1	—	—	1	
HETEROCLITES.								
Vermes	10	38	34	33	47	32	194	
Morbi Infantiles ‡	73	102	140	197	273	161	946	31
—— Biliosi ‡	75	89	111	172	198	149	794	2
TOTALS	1774	2502	2999	3603	3784	2979	17641	563

* Cullen places Phthisis among the Hæmorrhagiæ.

† We have placed *Pertussis* among the *Spasmi* in conformity with Cullen's arrangement, although we are rather inclined to think it belongs to the *Phlegmasiæ*.

‡ The term *Morbi Infantiles*, in the REGISTERS, was intended to comprise those disorders principally arising from indigestion or dentition, and which were too trivial to enter under any distinct head; and *Morbi Biliosi*, such complaints as are popularly termed *bilious*, but cannot be accurately classed. From the number of cases in each, and from the deaths recorded, we fear that our Reporters have taken our meaning in too extended a sense.

As connected with these Tables, as elucidating their results, and as pointing out the possible affinity of morbid effects with the actual state of the atmosphere in all its leading circumstances, a synoptical statement of the meteorological occurrences of each month in London, is essential for the completion of the views of this department of our JOURNAL.

DECEMBER 1813. — Greatest elevation of the mercury in the Barometer, 30^{5} on the 27th, wind W. almost calm, a dense fog: greatest depression, 29^{1} on the 8th, wind E, moderate, rain.—Highest temperature, 51° on the 18th, wind S, moderate, rain: lowest temperature, 27° on the 15th, wind NW, moderate, fair.—Greatest degree of humidity, 30 on the 24th, wind SW, almost calm, rain: smallest degree of humidity, 6 on the 1st, wind E, moderate, cloudy.—Wind, NW four days—NE, five days—S, two days—SW, five days—SE, three days—W, two days—E, ten days.—Rain on twelve days, snow on one day, and fog on nine days.

A temperature of more than usual mildness, changing suddenly to severe frost, and from severe frost to mildness, with the Thermometer at 51°; a light fall of snow on one day only, and a density and continuance of fog*, which, perhaps,

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* A respectable contemporary Journalist, Dr. Thomas Thomson (*Annals of Philosophy, February* 1814, p. 154), has noticed this fog as a most unusual occurrence. "Between Monday the 27th of December 1813, and Sunday the 2d of January 1814, a most extraordinary fog prevailed in London, and seems to have extended a great many miles round in every direction. It was frequently so thick that it was impossible to see across the street; candles were burnt in most of the shops and counting-houses all day long. This fog condensed upon the grass, the trees, and every wooden or iron railing. The grass was covered with a coating of snow (condensed fog) at least half an inch thick. Below the trees in St. James' Park there lay a bed of snow an inch thick at least, which had fallen from them. In London the thickness of the fog was still farther increased by the smoke of the city; so much so, that it produced a very sensible effect on the eyes, and the coal tar varnish might be distinctly perceived by the smell. But at a distance from town, though there was no smoke, the fog was very thick. Not a breath of wind was perceptible during the whole week.

"To account for the existence of such a fog, at such a temperature, and for such a length of time, constitutes a very difficult meteorological problem. According to the best data, air, at the temperature of 27°, is capable of containing a quantity of vapour weighing $\frac{1}{443000}$ of the atmosphere; and this quantity produces perfect saturation. Were it supposed that the whole atmosphere was saturated with vapour, and this vapour, by some means or

has been only surpassed on the foggy coasts, and banks of Newfoundland, has characterised the month of December, and the close of the year 1813.

Diseases affecting the organs of respiration, particularly the mucous membrane of the fauces and bronchia, so far prevailed, as to constitute nearly a third of the cases reported. An easterly wind had blown during the latter part of the month of November (from the 20th), and to the second of December, with a diminution of atmospheric humidity, usually accompanying the wind from that quarter; under the influence of which, catarrhal affections were most frequent and severe.—On the 3d of December there was a sudden increase of humidity in the air, notwithstanding the wind continued to blow from the same quarter. With this increase of humidity, catarrhal complaints evidently declined in frequency. Catarrhus, Cynanche tonsillaris, and Cynanche trachealis, were most frequent and severe in the Hampstead and Highgate district; and equalled in number the cases in all the other districts*.

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other, was condensed into particles of water, its quantity is so small that it would scarcely constitute a thick fog; since, allowing it to be all deposited on the surface of the earth, it would not amount to three quarters of an ounce avoirdupois for every square foot. The quantity of vapour condensed into snow upon the surface of the earth during the fog must have exceeded this very considerably. And this estimate, such as it is, must be reduced at least one half, because there is no reason to believe that the upper half of the atmosphere contains vapour."

The mean temperature during this week of fog, is stated by Dr. Thomson to be 27°, the Thermometer being never higher than 34° nor lower than 22°. In this instance, as in most others, a considerable disagreement exists among Thermometers. The instrument by which the Meteorological Table of the London Medical Repository is regulated, as far as regards temperature, was never during this foggy week lower than 29°, nor higher than 34°: in truth, there was not during this period of fog, any extraordinary intensity of frost, such as must occur with the Thermometer at 22°. We are more disposed to state the mean temperature of the air during the fog to be 31° or 32°, just sufficient to freeze the vapour, and incrust it on every projecting surface.

* In a *Medico-Topographical Sketch of London*, and the neighbourhood, inserted in the first volume of the *Repository*, p. 70, the Metropolis and immediate vicinity is divided into eleven medical districts; and upon this arrangement is founded the preceding elaborate and comprehensive register of diseases, affording a result, within six months, unprecedented in the medical annals of any country. Upon the data furnished by this register principally, and upon meteorological accounts connected with it, is formed this synoptical view of the weather and diseases.

JANUARY 1814.—Greatest elevation of the mercury in the Barometer, 30 on the 14th, wind strong from SE, and cloudy: greatest depression, 29^1 on the 19th, wind moderate from E, with heavy fall of snow.—Highest temperature, 41 on the 20th, wind variable, from SE, S, and NW, blowing strong, with snow and rain: lowest temperature, 20 on the 13th, wind N, with cloudless atmosphere.—Greatest degree of humidity, 27 on the 29th: smallest degree of humidity, 19 on the 11th, wind SE, and cloudy.—Wind, N three days—NW, eight days—NE, six days—S, one day—SE, five days—SW, two days—E, four days—W, two days.—Rain on four days; snow on fifteen days; dense fog on five days.

This month commenced with a remarkably dense fog, which began on the night of the 26th of December, and continued to the 3d of January. There was a considerable elevation of the column of mercury in the Barometer (in December) from 30^3 to 30^5, but it subsided toward the dispersion of the fog, which was followed by a considerable fall of snow. An almost constant frost prevailed throughout the month, and sometimes of great intensity, particularly on the 13th, when the Thermometer of this Register was at 20*.

The prevailing diseases were pneumonic affections of various forms, from slight catarrh to acute bronchitis, and pneumonic inflammation; the attacks of asthma were unusually numerous and severe, and particularly affected the lower orders, who experienced its fatality in an uncommon degree. The labourers in the warehouses and upon the wharfs of the Hon. East India Company, near the Thames, were remarkably the victims of this disorder. The disease, which has been called Pneumonia, and is supposed to be inflammation of the parenchyma and investing membrane of the lungs, notwithstanding the intensity of the cold, was neither frequent nor severe. Cases of determination of blood to the brain were frequent in elderly persons, and if followed by epistaxis, not important; but when this spontaneous evacuation did not arise, and bleeding was neglected, apoplexia and hemiplegia ensued. From a very extensive view of the diseases of London, it appears that the metropolis has been more healthy in this month than toward the close of 1813. A singular fact occurred respecting the general health in London, as connected with

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* There is sufficient evidence to shew that in many parts in and about the metropolis, the degree of cold was much greater. In Oxendon-street the Thermometer on this night sank to 7°; at Paddington and Somers Town to 6°; at Petersham to 2°; and in some, possibly not well authenticated instances, below Zero.

the foggy state of atmosphere above described. Before the commencement of the fog and humidity of the air, the wind blowing constantly from the E and NE, affections of the mucous membrane of the organs of respiration prevailed to an extraordinary degree; but, simultaneous with the commencement of the humid density, there was a decension of this form of disease, notwithstanding the wind continued to blow from the same quarter.

February 1814.—Greatest elevation of the mercury in the Barometer, 30' on the 20th, wind moderate from NE, clear atmosphere: greatest depression, 29' on the 8th, wind moderate, SW, showery.—Highest temperature, 45 on the 11th, wind moderate, SW, cloudy in the morning, but clear throughout the day: lowest temperature, 24 on the 25th, wind moderate, E, fog in the morning, but clear throughout the day.—Greatest degree of humidity, 27 on the 8th, wind fresh from SW. Rain in the morning, variable in the day, with clouds and sunshine.—Wind, N one day—NW, three days—NE, one day—S, one day—SW, five days—SE, one day*—E, eleven days—W, five days.—Rain on seven days; light fall of snow on one day; fog on four days.

A frost of remarkable continuance and intensity, and which prevailed during most part of the winter, arrived at its acmé in this month. On the 26th of January a thaw began, and lasted to the 29th, when the frost returned, and remained to the 5th of February. On the 4th of February the Thames was generally passable on the ice between Blackfriars and London Bridges, and thousands of persons were seen variously occupied on its frozen surface; ranges of booths were erected for the sale of refreshments, extending nearly to London Bridge, and under the centre arch of this bridge, so completely was the river frozen, that numbers of persons stood in security to view a scene which has so seldom occurred. Among other remarkable circumstances, a printing press was actually employed on the icy surface of the river, in printing an account of the phenomenon. On the 5th of February there was some snow and light rain; the Thermometer rose gradually to the 16th, when it sunk to 32, and freezing continued to the 20th of March.

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* The points of the wind are always taken to be that from which it blew in the morning at eight o'clock. The direction, however, often changed in the day, particularly with regard to the SE. From the 22nd to the 26th inclusive, the wind was due E in the morning, but uniformly became SE in the day, and returned to the E at night.

The intensity of the cold in this month remarkably influenced diseases, rendering them more frequent, and increasing their fatality. In London there was an increase of mortality amounting to 400 more than in the preceding month. To children under five years of age, the cold seems to have been particularly injurious, from thence to forty, its effects were better resisted: from forty upwards, the mortality increased, till in the latest period of life it was augmented in the proportion of three to one. It may be considered as a somewhat remarkable fact, that asthmatic affections and Bronchitis have declined during this intense period; and that pneumonic complaints of all kinds have not been more frequent, and have shewn symptoms of less severity. Apoplexy has been very frequent and fatal, and complaints of the head have very generally prevailed; dysentery, diarrhœa, and fevers, have likewise been of frequent occurrence.

It is of importance to ascertain by what mode the low temperature of the atmosphere induces apoplectic affections. The frequency of this disease during this month seems to have ascertained the fact of something like a series of cause and effect; though if an apoplectic paroxysm always or generally depends on a rupture of vessels in the substance of the brain, the inference would be, *a priori*, that this must happen during the excitement of high temperature, and under the known expansion of fluids by heat. The fact of the connexion of apoplexy with extremely cold winters, is not new however; and a similar coincidence, observed at a time long preceding the present, gives additional weight to the opinion that intense cold of long continuance is someway productive of this disease. In a *Physico-Medical Essay concerning the late frequency of Apoplexies*, printed at Oxford in 1689, the author, William Cole, M. D., labours to prove that unusually intense cold is the predisponent cause of this disease. Whatever a more enlightened physiology may allow to the rationale of the action of this cause as adopted by this learned physician, the singular fact upon which he founds his opinion, or attempts to establish his assertion, will always have its value. "It is known," he says, "that the winter of 1683, from which I date my æra of the frequency of apoplexies, was so intensely cold, and that cold of so long continuance, that no man's memory living could supply him with a similar year; and there was no need to repair to the northern regions to make experiments of freezing spirituous liquors: since which time it may be observed that this distemper (apoplexy) has been so rife."

This fact is supported by a reference to the London Bills of Mortality for 18 years, beginning with 1670, and concluding with 1687.

1670	died of Apoplexy	79	1679	died of Apoplexy	103
1671	——	63	1680	——	93
1672	——	65	1681	——	94
1673	——	84	1682	——	100
1674	——	101	1683	——	108
1675	——	86	1684	——	152
1676	——	84	1685	——	112
1677	——	66	1686	——	129
1678	——	83	1687	——	110

Dr. Cole remarks upon this statement, "That from the great increase of the number of deaths by apoplexy in 1684, it seems obviously deducible, that as some great and general cause from the constitution of the season must influence such accidents; so that assigned, from coldness, may have that energy here, since in both it was so remarkable, and nothing else appears fit to stand in competition with it. And from comparing the accounts of subsequent years with those which went before, there seems reason enough to suppose, that since the indisposition lasted, though the external occasion have ceased, the weakness on the *nervosum genus*, is not yet (1686) obliterated."

The great increase of nervous affections in the same period, under the term convulsions, seems fully as remarkable. In 1670, the deaths by convulsions were 1695; in 1684, they had increased to 3772. The increased destruction of human life, in a ratio agreeing with the intensity and duration of cold, is very much confirmed by the results of this register, and will justify, if it be necessary, the conclusions of Dr. Heberden: but whether there be yet full authority for the opinion that apoplexy in particular is actually produced by this low temperature, must be left doubtful, possibly, till further observation supplies more abundant data.

March 1814. — Greatest elevation of the mercury in the Barometer, 30' on the 16th, wind NE, moderate, atmosphere cloudy: greatest depression, 29 on the 1st, wind NW, moderate, cloudy, snow, and rain.—Highest temperature, 45 on the 22nd, wind S, nearly calm, rain: lowest temperature, 29 on the 9th, wind NE, moderate, fair.—Greatest degree of humidity, 22 on the 22nd, wind S, moderate, rain: smallest degree of humidity, 15 on the 6th, wind NE, moderate, with much snow in the day,—Wind, N four days—NE, eleven days—NW, one day—S, three days—SE, four days—SW, five days—E, one day—W, two days.—Rain on nine days; snow on ten days; fog on two days.

The continuance of frost during the greater part of this month, though not very severe, with frequent falls of snow; and about the middle, from the 13th to the 19th, with an ob-

scure, hazy, undefined cloudiness, intercepting entirely the radiance of the sun; and an unusually calm state of the wind, has characterised the March of 1814. The cold, though not so intense as in January and February, was often marked by the peculiar quality of suddenly abstracting animal heat, and thence became much more painful to the feelings, than is often experienced from a greater degree of intensity.

The great mortality of the preceding month was much decreased in this; but complaints of the respiratory organs have been very frequent and severe, particularly in children under two years of age. Pertussis has been epidemic in eight out of the eleven medical districts of London. A fact, much against the general opinion respecting the fatality of *Cynanche trachealis*, has been ascertained by the Register of the *Repository*. The proportion of deaths from this disease in London, when early energetic methods are employed, is not more than one in twenty. (*Vid. Repository*, vol. i. p. 361.)

April 1814. — Greatest elevation of the mercury in the Barometer, 30^5 on the 8th, wind E, almost calm: greatest depression, 29^3 on the 17th, wind S, moderate, rain.—Highest temperature, 57° on the 15th, wind SE, moderate, cloudy: lowest temperature, 43° on the 4th, wind SE, moderate, cloudy.—Greatest degree of humidity, 20° on the 1st, wind SW, nearly calm, cloudy: smallest degree of humidity, 19° on the dry side*, on the 13th, wind SW, nearly calm, cloudy. —Wind, S three days—SW, seven days—SE, four days—N, two days—NE, two days—NW, three days—W, three days—E, six days.—Rain on fourteen days; fog on two days.

The unusual severity of the winter was succeeded by a sudden approach of spring. On the 20th of March the wind, after blowing from the E and NE for fifteen days, shifted to the S, accompanied with a mild temperature, which has been little diminished to the end of April; the diminution of atmospheric humidity, notwithstanding it has rained on so many days, the range of the Thermometer, sometimes as high as 71°

* It may be requisite to state that the hygrometer employed in this Register has hitherto been the common one made with the arista of the wild oat. The scale of this is arranged in two columns, one for humidity, and the other for the opposite. In the winter the index is confined to the humid scale, in the summer to the dry one. This has occasioned some confusion and difficulty in the synoptical view. In this month toward the end, the index began to point to the dry side; so that this hygrometer on the 13th of April pointed to 19° of dryness in the atmosphere.

in the middle of the day, and never descending below 43° at an early hour in the morning, with the frequent cloudless days, has given a character to this month resembling June or July. Under this sudden increase of temperature, and the pleasing appearance of spring, the mortality of the last month, especially in its early part, has greatly diminished. The classes of diseases have also much changed; pneumonic affections have sensibly decreased, except phthisis, which has a marked and formidable increase. In the orders febres, phlegmasiæ, and exanthemata, a considerable augmentation is evident. The vernal intermittent begins to prevail, synochus and typhus are more general; cynanche trachealis has been unusually prevalent, but not fatal; scarlatina, and rubeola*, especially the latter, are epidemic. Complaints arising from disordered hepatic secretion, ophthalmia, and affections of the head, have been of very common occurrence. The genial temperature, and steady melioration of the atmosphere, has proved highly beneficial to young children, and those far advanced in years.

May 1814.—Greatest elevation of the mercury in the Barometer, 30^4 on the 11th, wind NE, moderate, fair: greatest depression 29^3 on the 6th, wind S, moderate, rain, fog in the night.—Highest temperature, 55° on the 29th, wind W, moderate, fair: lowest temperature, 42° on the 24th, wind W, moderate, rain.—Greatest degree of dryness, 30° on the 21st, wind NE, moderate, fair: smallest degree of dryness, 30° on the 7th, wind E, almost calm, fog.—Wind, S one day—SW; two days—SE, two days—NE, ten days—NW, five days—E, seven days—W, four days.—Rain six days.

The general character of the month of May has differed exceedingly from April; a harsh and dry cold has prevailed generally with winds from the E, veering to the S, but gene-

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* The increased fatality of measles in the City of Glasgow, as stated by Dr. Watt, in his Treatise on Chincough, and the cause he assigns for this increase, viz. the diminution of small-pox by the introduction of vaccination, is a fact of so alarming a nature, that it has demanded a most serious investigation. If it be any thing more than an hypothesis, that while small-pox were in full force, they had the power of modifying and rendering measles mild; and that now the small-pox is nearly expelled, the measles are coming to occupy the same ground (or fatality), it calls for an unprejudiced and minute inquiry. In London, and in the large towns of the Continent, as well as over other extensive sweeps of country, the calculation can only be made so as clearly to ascertain the fact. As far as the inquiry has yet gone, it is contradictory to the hypothesis of Dr. Watt. (*Vid. Repository*, vol. i. p. 325—231 and 449.)

rally to the N of that point for twenty-four days of the month. At the beginning of the month there was a remarkable decrease of atmospheric humidity, with a SW wind; but on the 7th, 8th, and 9th, the humidity greatly increased, with depression of the mercury to 29^5, and an easterly wind and fog.

The diminution of deaths in this month, as estimated by the London Bills of Mortality, shews that some cause, whether arising in the atmosphere or not, has operated to the reduction of the violence of disease. Measles increased, without being generally epidemic; small-pox, and cynanche trachealis also increased; but hooping-cough much declined. Affections of the liver were remarkably severe; and active hepatitis not an unfrequent occurrence. Though phthisis pulmonalis did not increase in frequency, its mortality was strongly characteristic of its intractability; of thirty-six reported cases, fifteen terminated fatally in this month.

From the 1st of December 1813, to the end of May 1814, the quantity of rain, as estimated by a gage placed thirty-five feet above the level of Cavendish Square, and upwards of 100 feet above the Thames at low water, was, six inches $\frac{15}{100}$*.

By the skilful treatment of individual cases, the usefulness of the medical practitioner is estimated; but beyond this a bold sweep may be given to the views of Medical Science, productive of results highly important to society. If the causes from whence epidemic disorders arise, or by which the health of the population is, in any way, influenced, either as relates to effects of the atmosphere, to habits of life, to diet, to trades and manufactures, to the dryness or humidity of particular places, to the production and propagation of contagions, &c. can be ascertained with tolerable exactness; and, if the degrees and forms of disease connected with them, or any other peculiarities, can be determined, an advance will be made of no trifling moment in the Medical Art. But it is manifest that these important objects can only be attained, by bringing a great number of facts to bear on them, and by extensive views of collateral circumstances. How far the preceding nosological tables, and the retrospective statements of the weather and corresponding

* This is, probably, much below the actual quantity which has fallen on the surface of the earth. For three reasons it seems necessary to admit this. London is always an unfavourable spot for collecting the falling rain, from the interposition of buildings—from the necessity of placing the rain gage at a considerable elevation—and, in the present instance, from the insuperable difficulty of ascertaining how much has fallen in snow, during the long storm of the winter of 1813-14.

diseases will effect this purpose, must be determined by time and the public voice. The intention has been to lay before the profession such an extensive view of morbid phenomena, with a register of those natural facts that have generally been acknowleged to influence the health, as should furnish materials for the establishment of some incontrovertible data.

Taken as a tolerably correct and full statement of the nature and degrees of disease in this metropolis, conjointly with the state of the weather and the progress of Medical Science and Literature, within the preceding six months, the hope that this REPORT may be found useful for the information it gives, and the facts it records, will hardly be deemed a presumption*. If the haste with which it has been drawn up requires an apology, it may also claim indulgence for the composition. Much will be conceded by those who honestly feel the value of imparting useful knowledge, and who desire to penetrate the mysterious and secret recesses of Nature,

"Till captive Science yield her last retreat."

June 1814.

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* Some notice of the progress of Medical Reform having been omitted in its place in the preceding pages of the Report, it may be proper to shortly state here, that the College of Physicians and the Society of Apothecaries of London having, within the preceding six months, concurred as to certain principles upon which the Parliament might be solicited to pass an act for the better regulation of the profession of the Apothecary, it was expected that this desirable measure, to a limited extent, would have been legally established. A disagreement between the College and the Society having arisen, however, on some points of detail, the whole of the proceedings are, for the present session, suspended.

Of the necessity for some comprehensive legislative authority to protect Medical Science, and to secure public health under its practice, every day affords instances in the bold ignorance or nefarious cunning of empiricism. And it seems peculiarly proper to press this fact at the present moment, not only on account of the countenance that is given to every empirical project by men in high stations of life, yet ignorant of the subject; but from the multitude of unqualified men, who every where obtrude into the practice of Medicine. A recent instance of extensive patronage given to a project for the cure of *Insanity*, is too prominent a feature of the present time, and too palpable a proof of the empirical disposition of the age, to be passed unnoticed. The project of a Mr. Lucett excited more expectation, and its failure has been followed by more disappointment, than any other circumstance connected with Medical Art that has arisen, perhaps, in the last

PART I.

ORIGINAL COMMUNICATIONS.

I.

An Historical Enquiry into the Origin of the Venereal Disease.
By H. Robertson, M. D.

PART I.

It is commonly supposed that the Venereal Disease first appeared in Europe among the French army at the siege of Naples, in 1494, and that it was previously introduced into Spain by Columbus's crew, on his return from the East Indies; the discovery of the American Islands, and the invasion of Italy by Charles VIII. of France, having taken place about the same period. According to the concurring testimony, both of physicians and historians, who lived at that time, there cannot be a doubt that an epidemical disorder prevailed among the besieging army, attended with peculiar symptoms, which occasioned the failure of that enterprise; but there are many circumstances which I shall adduce, that incline me to discard the opinion, which assigns the origin of that disorder to America, or even that the disease which broke out during the siege

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century. The great and the learned, princes of the blood and peers of the realm, united in a committee for the investigation and prosecution of this project, with a physician, to direct their inquiries. Astonishment only, however, at the temerity of an unlearned and unskilled man undertaking to cure the most unintelligible and perhaps most incurable of human calamities, being himself absolutely unacquainted with the simplest principles of physiology, and to the last point ignorant of medical practice, would have been awakened to an extraordinary degree, had not the countenance and support of persons of the first consideration in society, and one of them at least presumed to be learned in Medical Science, given to the empirical audacity of the attempt, and the certain inadequacy of the means, produced a sentiment of very different character. What the next generation will say of this project and its promoters, it is not difficult to conjecture; but how a physician countenancing a bold and barefaced empiricism will acquit himself with his brethren, is not of very easy solution.

of Naples has any resemblance to the Venereal Disorder as it appears in these times.

It was Fallopius who first decidedly promulgated the opinion of the American origin of Syphilis, (he wrote about seventy years after the discovery of the New World); although no such opinion is entertained by those physicians who describe the disease as it appeared immediately upon its breaking out. On the contrary, they generally impute its origin to the co-operation of a variety of local causes, as the malign aspect of the planets, heavy rains, inundations, bad diet, &c.: and it is but reasonable to place greater confidence in those who wrote from actual observation of the disease at its commencement, than in the opinions of men who give their descriptions of it at a more protracted period, even had we no other reasons for disputing the correctness of their observations.

In objection to the received opinion of the American origin of the Venereal Disease, it is to be observed, that the coincidence of the siege of Naples, and Columbus's return from his first voyage, is by no means so near, as to bear us out in tracing the origin of the disease that broke out in the army besieging Naples, to the contagion of a disorder imparted by the discovery of America.

According to Robertson, Columbus returned to Madrid on the 11th of March, 1493; and the invasion of Italy did not take place till the summer of 1494; and during the time that intervened between these periods, we have no accounts of the ravages of any peculiar disease in Spain, or in any other part of Europe; and it is hardly to be imagined that the disease, possessing the malignity of that which afflicted the army before Naples, could have remained so long dormant, without evincing some peculiar symptoms previously, in the course of its progress towards Italy, had its origin been foreign. We have no accounts that there existed any peculiar disease in the French army, till some time after it had sat down before Naples; nor does it appear that the crews of Columbus's ships were infected with any uncommon or loathsome malady, contracted in the countries they had visited, or even that any such disorder existed in the islands they had discovered. Columbus's papers, that were in the possession of his son, do not mention any such particulars. Astruc overlooking these circumstances, however, asserts, without favouring us with the most distant proofs of his opinion, that the Venereal Disease is endemial in the West Indies; an assertion that is by no means corroborated by the accounts we have of the first settlements in that quarter of the world. On the contrary, 150 years after the West Indies had been visited by Europeans, the Venereal Disease does not seem to have been very prevalent there, and even at the present day,

according to the concurrent testimony of Dr. Hunter, and other respectable physicians, it is not so frequent or malignant there, as it is found to be in Europe. There seems to be no doubt that Astruc has founded his opinion on the supposition that the variety of syphilis commonly met with among the Africans in the West Indies, is identically the same with the Venereal Disease of Europe. In this idea he is not singular. Père Du Tertre, in his Histoire Naturelle des Isles Americaines, 1650, remarks of their inhabitants, "S'ils sont peu tourmentés de maladies ils ont aux eschanges et comme pestilence, cette detestable et infame maladie qu'ils appellent Epyan, que est en bon Français la grosse verolle dans le plus haut degré de sa malignité; ils ne le gagnent pas par la luxure seulement, mais elle leur viennent du ce qu'ils veautrent dans milles ordures et immondices, et des viandes dont ils se servent; les enfants l'apportent de la ventre de la mère en naissant. Au reste nous sçavons de scienne certaine qu'ils l'ont communiques aux soldats Espagnols qui retournerent du premier voyage de Crystophe Columb, d'ou ils nomment les pustules et les ulceres de cette maladie Yaya." On a superficial examination of this passage, it would be considered as perfectly conclusive as to the origin of the Venereal Disease. But the affection which Du Tertre describes, and which is still common among the same description of people in the West Indies, is not only different from the disease that disorganized the French army, but it is in many particulars opposite in its description to the venereal affection, as it is commonly met with in Europe. Besides the yaws is not originally an endemial disease of the West Indies, but was first introduced into that climate by the negro slaves carried from Africa, amongst whom it seems to be a peculiar affection, (See Sydenham's Treatise de Syphilitide). The varieties of the Venereal Disease have not been sufficiently attended to in investigating the origin of that complaint; as there cannot be a question, although the influence of climate may have a considerable effect in varying the appearance of its general symptoms, that it exists under different forms in different situations, and which uniformly propagate affections peculiar in their symptoms, under every circumstance; and whose general resemblance only consists in the manner by which they are communicated, and by their general effects on the system, and as yielding only to a similar treatment. In this point of view we regard the yaws of the Africans, the Sibbens of Scotland, the Canadian Disease, or that species of the Venereal Disease known to our soldiers and sailors in the Mediterranean coasts by the name of the Black Lion, which most probably owes its character to the power of climate, and the peculiarities of the constitutions affected with it. But the others, although

agreeing in general symptoms, yet must have each a peculiar and distinct origin: a circumstance that powerfully militates against the opinion assigning it to one particular source.

It has been said by those who impute the origin of the Venereal Disease to America, that twenty men sick of the complaint returned to Spain with Columbus; a most extraordinary assertion indeed, as it is given against the most creditable authority, which states that the entire crew of his fleet, on setting sail from Spain, only consisted of ninety mariners and a few adventurers. But even Fallopius's account of the manner in which the disease was propagated after it was introduced into Europe, completely refutes, in my opinion, the probability of the whole story. He says, that the Neapolitans, while besieged by the French, sent some girls into their camp, who were previously known to be infected with this new disorder, and by them it was communicated to the whole French army; from which cause it was almost immediately rendered incapable of continuing the siege; and in its retreat through Italy, the disease was every where disseminated.—Now even this account of the matter would lead us to suspect that the disorder thus described, differed most essentially from the Venereal Disease. The former seems to have been of great malignancy, and rapidity in the progress, and most probably an acute disease: whereas the venereal affection is comparatively slower in the evolutions of its symptoms, and never appears in the general and extraordinary way as detailed by Fallopius. But admitting this account to be correct, it must be taken for granted, that the disorder thus communicated to the besieging army must have been previously raging within the walls of the city; but which does not appear by any history of these events. In the next place it would follow that the disorder that appeared in the French army must have been similar, at least in its symptoms, to the affection of the West Indies, but which we shall afterwards find was by no means the case; and with making every allowance for the influence of climate, we see no grounds for tracing a resemblance between them.

In opposition to the opinion of Fallopius, we have that of Hack, who wrote in 1514, and who of course must have been perfectly acquainted with the circumstances attending the origin of the disease that broke out in the French army before Naples; and this writer expressly says, that the disorder might be traced so far back as 1483, appearing in different parts of Italy in a more or less malignant degree; and in concord with this opinion we have the evidence of two other authors quoted by Astruc, who mention it long before America was discovered. Taking also these circumstances into consideration, I conclude, that the disorder which broke out in the kingdom of Naples,

1494, had not its origin in America. And I shall immediately proceed to state particularly what inclines me to believe that the Neapolitan disease was of an acute pestilential nature; and that there are circumstances which shew that a similar ailment has occasionally broken out in different parts of the world: and moreover, that the Venereal Disease, as it commonly appears, has been known to physicians from the earliest records of science: though from the little progress that had been made in the knowledge of the structure and functions of the body, it is not only confounded with other diseases, in consequence of some absurd pathological opinions, but its various symptoms are classed in distinct and opposite heads of arrangement. I shall therefore proceed to enumerate the circumstances which seem to me to support this opinion, in the order I have mentioned them.

According to the most correct observations, it has been ascertained that the same description of plague or pestilence not only varied in its symptoms in different climates, but it is even found in the same country, with different symptoms, in different, or in the immediately successive years. It is from inattention to this fact, I imagine, that so much discordance has prevailed among authors in delivering their opinions of the nature of the diseases which broke out in the camp before Naples in 1494; although, from the facts I shall now adduce, its pestilential nature will appear unquestionable. Sanchez says in his work on the Venereal Disease, that Aquilanus found many of those who were attacked with the Neapolitan disorder at its commencement, died suddenly, as if they had imbibed the semina of the pestilence in its ordinary form. Pintor also describes it as an epidemic disease, commencing with a violent fever, and symptoms of the most terrible description.

Cardinal Bembo, who lived at the period of the invasion of Italy by Charles 8th, describes the disorder that broke out in his army as a plague, and enumerates its symptoms nearly as in Fracastorius' elegant poem de Syphilitide. But in neither of these works, nor in the descriptions of the earliest writers on the Neapolitan disorders, is there any mention of the primary symptoms usual in Syphilis; nor does this disease appear to have commenced in the genitals. Fracastorius was born in 1480, at Verona, and must have therefore been well informed regarding every symptom connected with the origin of this disorder. After taking notice of the supposed causes of its appearance, he says, in his poem above mentioned, respecting its origin—

"At vero, si rite fidem observata merentur
"Non ita censendum. Nec certe credere par est
"Esse peregrinam nobis, transque æquore rectum
"Contagem. Quoniam in primis ostendere multos

"Possumus, attactu qui nullius, nunc tamen ipsam
"Sponte sua sensore luem, primique tulere.
"Præterea, et tantum terrarum tempore parvo
"Contages non una simul potuissit obire."

In the prose work of the same author on this subject, it is stated as remarkable, that—"although a considerable number of those affected with this disease, contracted it by contact or contagion; nevertheless, a considerable proportion of those ill of this malady, appear to have acquired it without any previous contact: besides, it is impossible that in so short a space of time, its propagation by contact, which is naturally a slow operation, should be capable of disseminating it over so great an extent of territory, had it been brought first into Spain by a fleet; especially as it appears that at the same time, or nearly so, this disease appeared not only in Spain, in France, and in Italy, but in Germany also, and almost over the whole of Scythia."—I shall also adduce, in confirmation of this opinion, the terms in which this disease is noticed by Ariosto in the 33° Canto of his Orlando Furioso, where he mentions the siege of Naples, and expressly denominates the malady a fever which ruined the French army. He was born in 1474, and must have been well acquainted with the opinions entertained of that disorder; and to those acquainted with the unequivocal language of that celebrated man, when he speaks of the most delicate subjects, it is unnecessary for us to say, that had any doubt been entertained of the nature of that disease, it would have been described in appropriate terms. His words are in Stanza 57:

"Ecco l'Armata Imperial si scioglie,
"Per der soccorso a la citra assediata,
"Ed ecco il Doria, che la via le toglie,
"E l'ha nel mar somnersa, arsa, e spezzata;
"Ecco fortuna, como caujea noglie,
"Seù, qui a Francesi si propizia stata;
"Che di *Febre* gli uccide, e non di lancia,
"Si che di mille, un non ne torna in Francia."

I must likewise refer to the work of Amirato in the Totario Fiorlines, vol. ii. p. 355, for a further confirmation of the same opinion.

Many writers on the disease at this period seem to regard it as a pestilential or epidemic fever, similar in every respect to that which is described by Hippocrates in the 3d Book of his Epidemics, and originating from the same causes, viz. the inundations which principally covered the Campagnia of Rome, and many places in the kingdom of Naples the preceding year. The same writers mention, likewise, a disorder, similar to this in its appearance, that had been generated by an overflowing of

the Tiber in the Pontificate of Pelagius; as in the summer succeeding to that, malignant pustules were extremely frequent, and which were unknown to physicians at that time. Lionicenus takes notice of this circumstance, and quotes Blondus Florlivensis, who observes that after an unusually wet summer this malignant epidemic broke out, of which even Pope Pelagius died. The same author, besides referring to the 3d Book of Hippocrates' Epidemics, points out passages in other authorities posterior to that, as Galen, Avicenna, &c. which he supposes indicate the existence of a similar disease. It seems also very probable to me, that the instances recorded by Gregory of Tours, under the name of Lues Sines inguinaria, may be varieties of a similar affection.

Jacobus Cataneus says the Neapolitan disease appeared before 1494. It then broke out with innumerable pustules, and always on the surface of the body, with severe pain, and it so afflicted the human race, that any kind of death was to be preferred to it. It was a contagious disorder, neither sparing age, sex, nor climate; it pervaded the whole earth, afflicting the princes and nobles of the land equally with those of the lower ranks of mankind.—Torrella, who wrote in 1499, gives nearly a similar account of its symptoms: he remarks that the sores sometimes discharged a whitish viscid matter; and those cases of which he has given a notation of the treatment, seem to have been cured by keeping the pores open, and a lax state of the bowels. In no case did he employ mercury: and indeed in the writings of the physicians at this period, mercury is said to have been improper in this disorder. Guicciardini also mentions this disease in his history, and he probably drew up his account of it from what fell within his own knowledge. He calls it a pestilence, formerly unknown to our hemisphere, if it was not perhaps in some of the remote extremities of it, and was for *some years* so terrible in its effects, that it deserves to be mentioned as a most cruel plague. He speaks of it as an acute disease, which in a few years had lost its virulence; and it seems also from his account of it to have been propagated without any venereal contagion, sparing neither age nor sex; many died of it; and as it declined, that guiaicum was found an effectual remedy for it.

But at the period when Guicciardini wrote, and Fracastorius also, the disease had in all probability nearly disappeared; the latter admits that it had greatly changed in the virulence of its symptoms: at that period, he says, the contagion lay concealed in the body sometimes for a month, at other times for two and even four months, and there can be but little doubt that at this period, the Leprosy, or Venereal Disease, was confounded with the Neapolitan disorder. I imagine this to have happened, as

the latter disease seems to have nearly disappeared, about the year 1500; and it then was found to yield to the effects of mercury. Fracastorius mentions that this medicine was first introduced for the cure of that affection by a barber, whom he knew, who had a very old book of certain recipes, the title of which was, "*Against the Thick Scabs which occur in the Joints, with severe Pains;*" and from some hint contained in that book, the barber thought proper to use a preparation of quicksilver and sulphur against the opinion of the faculty, by which he amassed a very large fortune. Indeed the very name of Pox, which the Neapolitan disease acquired in every country when it first broke out, sufficiently explains the opinion that was held of it, it being so named from its resemblance to Small-pox.

Fracastorius seems to have unequivocally expressed the opinion that the Neapolitan disorder was fast approaching to extermination at the time he wrote. He says, that its contagion was not then so readily catched as formerly, and it seemed probable that it would become at length unable to propagate itself, and must cease, "only to return when the same circumstances and causes conspire to engender it;" an observation that so enlightened a man would not have applied to any other than an acute disease. These are the principal facts, which I imagine fully warrant us in concluding that the disease which broke out in the French army before Naples, was an acute disorder, and a variety of the ordinary pestilence, and which bears a stricter resemblance to the Small-pox than Syphilis: the latter being a chronic disease, and propagated at all times in so gradual a manner, even in its worst form, as never to produce the effects characteristic of the Neapolitan disease.

(To be continued.)

II.

A Description of the Salt Lakes and Rock Salt of Russia. By C. T. Herrmann*.

1. Of the Salt Lakes.—The richest salt lakes, whence salt is procured for the magazines of the crown of Russia, are

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* The paper from which we have extracted this Description, is contained in the first and second volumes of the *Memoires de l'Academie Imperiale des Sciences de St. Petersbourg.* The whole paper is of sufficient interest to be laid before the public in an English dress; but, as we conceive it would be foreign to the object of our Journal to occupy our pages with the political and statistical observations, we have translated those parts only which refer to the natural history of these extraordinary lakes and rocks.—Editors.

those of Astrachan, the lake Elton, the lakes of the Crimea, and those named Koroekouskie and Aleouskie.

The lakes of Oural and of Manitsch are also very rich, and are appropriated to the use of the cossacks of the Oural and the Don.

There are, besides, some other lakes, which yield but little salt, or are now abandoned.

1. *Salt Lakes of Astrachan or of the Caucassus.*—These lakes are situated near the shores of the Caspian Sea, upon both banks of the Volga, and some in the interior of the country. A great proportion of the salt, named Astrachan salt, is actually brought from the government of the Caucassus, as that of Kislar and Majarsk. The salt is distinguished sometimes by the name of the lake, sometimes by that of the circle, or even of the magazines. The following are the more remarkable lakes: Lake *Baskountschatsk* in the circle of Tschernajarsk, which yields a beautifully crystallized salt; two lakes known under the name of *Bielie* in the circle of Krasnojarsk; four named *Ledenetzkie*; the Lake *Kordouanskoe*, which yields both common salt, and a bitter medicinal salt, separately found there; the two *Basinskie* lakes in the circle of Astrachan, and the lake *Majarskoe* in the Caucassus, which is the most considerable. There are some others also both on the shores of the Caspian and in the interior, which are less rich and little frequented. Salt is found in great quantity at the bottom of these lakes. Some assert that they would be sufficient to supply the whole of Russia with salt*, others deny this†, while I have been assured that they would be sufficient not only for all Russia, but part also of Europe. It is difficult to ascertain the fact, as the salt is not collected from all the lakes. That these lakes, however, are very abundant, is evident; and the supply of Astrachan salt, when the commerce was free, was adequate to the consumption of many governments of southern Russia‡. This tract of salt is very ancient§. But the lake of

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* *Le Clerc, H. m. T.* 11. p. 529.

† *B. F. I. Herrmann.* Statistische Schilderung von Russland, p. 332, note.

‡ From 1764 to 1774, 6,766,097 poods of salt were drawn from these lakes. The pood is 3840 soloniks, one hundred and five and a half of which are equal to one pound Avoirdupois.

§ *Josafa Barbara*, in a work intitled "Scriptores rerum Persicarum, Frankfort 1607," says, that the inhabitants of Moskow went annually upon the Volga to bring salt from the lakes of Astrachan. He speaks also at length of the lakes of the Crimea. In the remotest times the south of Russia drew its salt from Galicia. Under the reign of Swuetslaw Isiaslavitsch, Grand Duke

Elton having been discovered, these governments have been provided with the salt of this lake, owing to the greater facility of transporting it.

The salt of Astrachan is not of the same quality in all the lakes. In general it is very pure, and better than the salt of Elton, except that kind which is bitter. Some of it is very white, and surpasses in this respect the lake salt of the other governments. All the lake salt is greyish, owing to the slime which is attached to it, and the bitter salts in particular contain many earthy particles. Epsom (sel d'Angleterre) and Glauber salts are sometimes extracted from the Astrachan salt.

2. *Salt Lake of Elton.*—The Lake of Elton, formerly named Altan by the Nomades, is situated in the government of Saratow in the circle of Kamischin, under 51° 31′ 28″ of northern latitude, and 63° 40′ long. from Ferro, upon the left bank of the Volga, or the side of the plain in the Steppe of Oural. The Steppe inclines on every side towards the lake as towards its centre. Into this basin, which has no outlet, and the banks of which have an elevation of from 3 to 7 archines*, eight small rivers fall. It is the only salt lake in the government of Saratow, but there are others in the Steppe of Oural to the south-east of Zaritzin. It is 17 versts † in length, 13 in breadth, and 47 in circuit; and the surface contains about 17,000 dessetines‡. It is 127 versts from Kamischin, and 274 from Saratow. The adjacent ground is slimy, marshy, and adhesive; of a blueish hue, and in some degree resembling an ointment: there is no black mould except upon the west coast, between the rivers Oulan and Chari-Sacha. The borders of the lake are altogether uninhabitable, the soil being humid, marshy, and sterile, except some spots upon the Oulan-Sacha and the Chari-Sacha, where a few herbs appear, which might serve for fodder to animals in cases of great necessity. The carriers of the salt are therefore obliged to drive their cattle fifteen versts from the lake, before they find pasturage. Good water also cannot be obtained nearer than thirty, and even in

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of Kiew, the troubles of the country, and the numerous bands of robbers prevented the Galician and Peremischlen merchants from carrying salt to Kiew; and there was no salt in all Russia, and the people were much distressed. A monk, of the monastery Perchaskoj at Kiew, distributed salt to the poor, which he said he made from cinders by a miracle. *Annales Russes, à l'an.* 1097.

* An archine is about two feet four inches English measure.

† A verst is 3,500 feet English measure.

‡ A dissetine is 117,600 square feet.

some places eighty-four versts. No trees are found upon the borders of the lake; there is a few under shrubs only in some ravines, which supply wood to the carriers in autumn. White and grey ducks, nearly as large as swans, frequent the lake, but there is no fish either in the lake or in the rivers that fall into it. Indeed it is a desert, where industry collects men together only at certain periods of the year.

The Lake Elton is the richest of all the salt lakes of Russia. The beds of salt are of an unknown depth; and the salt can be procured in every season. In fifty-seven years, 235,516,590 poods of salt have been taken up from this lake; but this is a very small portion only of the immense quantity it contains, for it has been wrought for the distance of eight versts only along the west side, and about seven versts into the lake.

The salt of Elton is strong enough; but in general it is unfit for use until purified, not owing to any peculiarity of its nature, but from local circumstances. The lake, although upon a very elevated spot, is nevertheless a basin upon the declivity of the Steppe, and lower than the Volga. Eight small rivers fall into it, the largest of which, the Chara-Sacha, has a course of about forty versts. The water of all these rivers is tepid, saline, bitter, and, like the lake, does not freeze in winter; but their channels are almost completely dry during the summer. Their water carries down calcareous and vitriolic particles. At their mouths the ground is so marshy, that the lake cannot be approached in many places; and the saline particles which these rivers bring down, form in the month of June a very strong brine, which is named Touslouk or Rapa. During the summer the salt forms in small crystals at the surface, which fall to the bottom and form larger crystals of about a quarter of an inch in diameter. These soon cohere together and compose the new crust of salt, (this happens from the month of June till September,) which extends from 200 to 700 sachenes* from the borders of the lake.

This new salt, which forms a crust, or rather stratum, of from two to four inches in thickness, is enveloped with earthy and sometimes bitter particles, and is separated from the former stratum by a layer of from two to four inches of slime. The new salt is pure enough, but too farinaceous and moist (farineux et humide†) for common use, and therefore that of the old beds

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* A sachene or sajene is 7 feet English measure.

† Although we have translated literally these expressions, yet, we confess that we do not understand their meaning; as in our

is preferred. All the strata have the crust of impure salt, which has sometimes a bitter, sometimes a sweet taste, and the layer of slime: the former covers the stratum of good common salt, the latter lies below it. The good salt is blueish, compact like ice, and heavy. It is necessary, however, to cleanse it carefully, by separating the bitter particles, and washing away the layer of slime in the tousIouk; but after all, the salt is commonly again covered with the fine sand and viscous powder which surrounds the lake, when it is brought on shore and exposed, as it usually is, although on an elevated spot, in order to dry it. As these inconveniences do not occur at the Astrachan lakes, owing to the surrounding soil being either clay or gravel, their salt is generally whiter than the Elton salt. The water which covers the lake, rises in the spring and autumn, when it receives the waters of the Steppe to the height of an archine and a half (three feet six inches); a circumstance that never happens to the lakes of Astrachan, the water of which seldom exceeds half an archine (one foot two inches) in depth. In the summer, on the contrary, the water of Elton lake is lowered to three or four inches. Both, the superabundance and the deficiency of water renders the working difficult; in the first case it is difficult to draw the salt from the bottom of the lake; in the second, it is as difficult to transport it by water to the bank, and cleanse it in the Rapa.

The labourers upon this lake (the number of which varies from one hundred to one thousand) assemble about the end of April. They wear enormous boots, which they call bachili, and are provided with a sharp iron bar and a spade. They advance seven versts into the lake, break the salt in the same manner as ice, wash it, and separate the purer cake from the impure salt. This employment is extremely prejudicial to health; all the labourers suffering from scorbutic sores occasioned by the brine*, particularly during the heat of summer. For the cure of these sores, some cover the ulcers with wax, others anoint them with hare's grease, and apply dried herbs called podorognik, taking care to secure them from the action of the brine; while some again go to Kamischin or Saratow, where they first use the hot baths, and afterwards the cold fresh water baths.

(To be continued.)

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opinion a salt cannot be farinaceous or friable and humid at the same. A friable salt is generally *efflorescent*, a humid *deliquescent*.—Editors.

* It may be questioned, whether the disease here noticed, if it be really scurvy, arises from the deficiency of fresh vegetable matter, owing to local circumstances, or from the brine?—Editors.

III.

On Carditis, &c. and the Morbid Appearances on Dissection. By a MEMBER of the ROYAL COLLEGE of SURGEONS, London.

NOTHING contributes more to the improvement of Medical Science, than an attentive anatomical examination of diseases, the origin or seat of which is obscure, or on the treatment of which a difference of opinion exists. This applies more particularly to diseases of the thorax; in which, in addition to the natural difficulty of discovering with precision the nature of early organic affections, our guide in examinations, by touch or sound, is very fallacious, notwithstanding the observations of Corvisart, from the manner with which the contents of the chest are externally protected.

The regular performance of the functions of all the thoracic viscera, is of the first importance to health; and from the intimate connexion of these functions with each other, and the known rapidity with which disease takes place, when they by any morbid affection are deranged, it is not at all surprising that the disease of one viscus should be occasionally mistaken for that of another.

These observations are elicited by a fatal error I have several times known committed in the diagnosis of diseases of the thorax; which, in my opinion, are still too slightly regarded.

Thus diseases of the heart have often been treated as those of the liver. Corvisart, indeed, alludes to this error in judgement, and attributes it to the obstruction to the blood in the lower cava from the gorged state of the vessels in the latter viscus. This is by no means a satisfactory solution. The four following cases will suffice to support my assertion, and I hope may lead to a full investigation of this subject, and to an ultimate improvement in practice.

These cases were attended by different physicians: but as I had no opportunity of accurately ascertaining the previous symptoms in three of them, I shall merely state, that they were considered as diseases of the liver, and treated with mercurials; that, on dissection in two of them, there was a considerable serous effusion in the cavity of the pericardium, and several bands of coagulable lymph, attaching this membrane to the heart: in the third, the heart was entirely covered by coagulable lymph, and the liver in all was perfectly healthy.

The fourth case was that of I. S. ætat. 36, a Prussian by birth, who had served in the campaigns in the Low Countries. He applied to me to relieve a severe cough, which had troubled him for many months, and was attended with considerable dyspnœa. He was of tall stature, and of a sallow, hectic, dis-

tressed countenance; his body was constipated; at times he was unable to lie down, and often awoke, suddenly, towards the morning, very much agitated. His occupation required much walking, which he was incapable of performing without distress. He complained of pain at the scrobiculus cordis; and his pulse, if felt for any length of time, was extremely irregular. Under these circumstances, I communicated to his friends my suspicion, that he had hydrothorax, connected with organic lesion of the heart or its large vessels. Aperient and saline medicines, with perfect rest and a vegetable diet, were prescribed.

A few days after I first saw him, he was removed into the country. I heard nothing of him till about six weeks afterwards, when I was desired to visit him immediately. I did so; but on my arrival, I found it was too late. In the act of beating his coat, he was seized with syncope, came into the house, threw himself on a sofa, complained of faintness, and instantly died.

His wife informed me, that he had returned home only a few days; that the practitioners who had attended him in the country, had pronounced it to be a liver complaint, accompanied with jaundice; that he had been cupped on the pit of his stomach, which gave him some relief; that a course of mercurial aperient medicines had been adopted; and that he returned home under an assurance, that in a week or two his health would be completely re-established.

In consequence of these opposite opinions, I was extremely anxious to have the body examined; and leave being obtained, he was opened a few hours after his death. Our attention was first directed to the abdomen: the liver, its vessels, ducts, and the gall bladders, were perfectly sound, not shewing the slightest trace or vestige of disease. In the thorax, the pericardium was unusually prominent and distended; and on opening it, it was found nearly filled with blood, which had proceeded from a rupture of the right auricle, that was enlarged to nearly four times its usual size. The *valvulæ tricuspides* were ossified. In the left side of the chest was about a pint and a half of watery fluid; and nearly as much in the right side.

It will be hence perceived, that the primary disease was the ossification of the valves: the enlargement of the auricle and hydrothorax were the consequences. The ossification of these valves is by no means a common occurrenee. Bichat, influenced by the absurd theory of the difference of structure between that portion of the heart conveying arterial blood, and that portion receiving venous blood, denies that it ever exists. That he never met with it is certain: but two cases, at least, are on record, either of which will more than counterbalance

the negative testimony of any name, however justly celebrated*.

The three first cases were evidently purely inflammatory; and Corvisart, on the subject of Carditis, inquires, whether inflammation of the heart has always a well-marked acute character†? I am induced to think it has not; but that there is often a singularity of pulse, which may mislead a practitioner. The following case I consider to have been one of Carditis, and illustrative of the state of pulse to which I have alluded.

Mrs. P. ætat. 40, in a state of great mental agitation, underwent immense bodily fatigue for two or three successive days. On her return home she complained of a pain on the left side of her chest, took some slight refreshment, and went to bed. The pain increased so rapidly, and became so violent, that her groans disturbed her friends in an adjoining room. Early in the morning I was desired to see her. I found her lying on her back, and totally unable to speak; her countenance expressive of the most excruciating agony; a slight dyspnœa; pulse not sixty, oppressed, but by no means full; and her hands were pressed directly on the region of the heart, where the pain had been constantly fixed. For a minute or two I hesitated what plan to adopt, when I determined to bleed her, and to be guided by the state of the pulse under the operation. She had not lost more than three or four ounces of blood before the pulse increased in fulness and frequency, and her countenance assumed a more composed aspect. When about eight ounces had been taken away, her pulse rose to nearly one hundred, and she exclaimed that she was easier. Twenty ounces were abstracted, when a slight syncope occurred; but my patient was relieved.

I remained with her for some time, and left her nearly free from pain, with her pulse about 90. An active purge was given, and a large blister was applied to the pained part. In the evening she found little other inconvenience than what arose from the blister. The antiphlogistic plan was continued for a few days, when she completely recovered.

The previous mental agitation, the violent exertions, the seat of the pain, the total absence of cough, and the state of the

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* Morgagni, Letter 47, Article 16.—Corvisart's Treatise on Diseases and Organic Lesions of the Heart and Great Vessels. Case 30.

† Vide Corvisart's Treatise, 2nd edit. p. 238.

pulse, clearly indicate, in my opinion, in this case, inflammation of the heart.

Corvisart, after describing aneurism of the aorta, remarks*, that he has often met with the internal membrane of this vessel of a deep red colour, unattended by any thickening of its coats; and that he communicated the circumstance to Dr. Franck of Vienna, who had collected about thirty cases of this disease. Without attempting to explain the causes, he observes that Dr. Franck considers it to arise from, or to be accompanied by a malignant fever, that hitherto has always proved fatal; and that the diagnostics of this complaint are perfectly familiar to that celebrated physician.

This appearance I have frequently seen; and having attended two cases where it was met with, I have subjoined them, as it is probable that, through the medium of the MEDICAL REPOSITORY, they may meet the observation of those eminent men.

The first was in a middle aged woman, who had long been addicted to an excess of spirituous liquors; and who for many months laboured under a most inveterate hepatic disease, with jaundice, and phthisis pulmonalis, of which she died. In the abdomen the liver was of a deep yellow colour, and bore a stronger resemblance to a mass of clay than to any organised body; and it readily received and retained the pressure of the fingers. The *ductus communis choledochus* was completely obstructed by a gall stone of the size of a small nutmeg. In the thorax there was universal adhesion of the lungs to the side, and they contained large suppurating tubercles. On removing the heart, I perceived the internal coat of the aorta to be of a deep pink colour; and on examining this vessel attentively, I found it the same throughout its whole length, as were also the principal branches that went from it.

The second case was that of a child, three years old, who had always been subject to inflammatory attacks; and who died from a rupture of a vessel at the base of the brain, when labouring under a slight attack of croup. The contents of the chest were removed, to examine them more easily, when the red appearance of the aorta attracted my attention: it was nearly the same, as in the first case, but not of so deep a red colour.

These cases would incline me to infer, that this morbid appearance arises from a general inflammatory diathesis, and not from the effect of any fever of a malignant nature.

London, April 20, 1814. I. R.

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* Vide Corvisart's Treatise, p. 350.

IV.

A Reply to a Criticism lately published upon a Case of Urinous Vomiting, which appeared lately in the ANNALS *of* PHILOSOPHY. By W. REID CLANNY, M. D. Hon. Mem. of the Roy. Irish Academy, and of the Roy. Phys. Soc. of Edin. and also of the Kirwanian Soc. of Dublin; Physician to the Sunderland Dispensary, &c. &c.

PERMIT me, through the medium of the LONDON MEDICAL REPOSITORY, to offer a few observations by way of reply to a criticism which appeared in a Medical Journal of London for last month*.

Some time ago, in one of my letters to my friend Dr. Thomson, of London, I casually mentioned an extraordinary case of spontaneous vomiting, observing, that, in a preceding number of his "Annals of Philosophy," I was much interested by a paper of Professor Berzelius upon human urine, and hinted at the same time that I thought the case which I had just mentioned to him deserved to be recorded. Dr. Thomson, not long afterwards, informed me, that the case was so interesting, that he would publish it in the Annals of Philosophy; to which I freely consented.

I conceive that it is requisite to refer your Readers to my case itself, as it appeared in "The Annals of Philosophy," vol. 3, p. 436, and to observe, that at page 437, line 17 from the bottom, there is a typographical error, and that the words *spits pus* ought to be substituted.

This is the *Case* which has occupied the critical talents of the Editors of the New Medical and Physical Journal in last month's number, under the head "Gleaner," commencing their account with the following *courteous* and *correct* introduction.

"URINOUS VOMITING."

"A paper in elucidation of this subject, as agitated by Dr. Yeates and others, is inserted by Dr. W. R. Clanny, in the last number of the Annals of Philosophy, of which we shall render a short account. Our Readers, *perhaps*, will augur unfavourably of a *Medical* paper, presented to the public at

* Although we think it proper to oblige our respectable correspondent, by inserting his communication; yet we conceive it necessary to disclaim every party feeling in the observations of any one, as far as all contemporary journals are concerned.

EDITORS.

large, nine tenths of whom are not competent judges of medical subjects, and may be disposed to believe, the author's reason for withholding it from those medical journals, where it would be read by those who are judges of it, could only arise from a consciousness, that it contained nothing worth the attention of his professional brethren, or that he was afraid its merits could not bear their investigation. Be this as it may, it is our duty to *bring to light* medical facts wherever we find them; and we accordingly place the following before our readers."

What we are to infer from this exposition of the *probable* surmises of the readers of this "Gleaner," I shall leave the world to judge, when I have set the matter in a true *light,* without the aid of such professional *brethren.*

A short time previous to the transmission of my paper to Dr. Thomson, for insertion in his excellent Journal, I observed an *indirect* advertisement in a provincial newspaper, giving notice that a discussion had taken place in a London Medical Journal upon the subject of urinous vomiting, which had attracted the attention of the medical community—neither the Journal, nor the names of the parties were stated. This I mention to shew how far I was a "partisan" in the discussion.

Secondly.—As I had no reasons for withholding my case from the Medical Journal but a desire that it should be inserted in the Journal of my distinguished friend for the reason given above, this surmise is likewise refuted.

Thirdly.—Is it in common sense to suppose, that a medical paper is withheld from medical men because it happened to be published in a Philosophical Journal? Certainly not; for I have every reason to believe, that Physicians and Surgeons are more known in the walks of Science, than any other class of men, and of course they would soon see and read a case, should it appear (I may say accidentally) in a Philosophical Journal: besides, how much are we not indebted to the Philosophical Transactions, for excellent papers in all the departments of Medical Science!

Fourthly.—The town of Sunderland, in which I reside, though populous, and sufficiently enlightened, has not yet arrived at that stage of improvement, as to require more than three or four numbers of the Annals of Philosophy, as they are published monthly; therefore the unworthy motive of giving "a medical paper to the public at large," does not by any means apply.

Fifthly.—I leave the medical community to judge the paper *itself,* and trust that as they are not all "gleaners," and have no prejudices or theories to serve, they will give that credit which is due to a public and well-authenticated case, which I have drawn up with as much attention as my time would per-

mit; and this I will say, that in the course of twenty years, which I have been occupied in studying and practising medicine, I have not met with a more striking case than the one in question. And as to the reliance which ought to be placed upon "the descriptions of patients' feelings and sensations," I consider myself at least as competent a judge as the "Gleaner" himself, even though he had been by the bedside of my patient: and as my patient had no perspirations, no increase of urine, and a severe and incessant vomiting of an offensive, salt, and urinous-tasted fluid, which very greatly exceeded the liquid which he had drank for several days, and amounted to several gallons, while at the same time the bowels had always been regular, it became a matter of inquiry to ascertain how the serum was transferred from the feet, legs, thighs, and abdomen, to the stomach. Yet all this appears in the eye of the "Gleaner" tobe the most slender grounds for the adoption of an idea, that the fluids contained in the cellular membrane and abdomen of this man were transferred to the stomach! The Gleaner might as well desire me to explain why certain parts of the human body become distended with fat, while the rest of the body is nearly deprived of that substance—or, upon what principles, in some cases of amenorrhœa, blood is vomited from the stomach, and in such a way as to appear a substitute for the catamenia? The last quotation of my *unprejudiced* reviewers, is to the following effect. "The author regrets, that he had it not in his power to examine the liquid, as a chemical analysis would have demonstrated its affinity to urine." "We much doubt," continues the Gleaner, "whether the affinity spoken of by the author would have been found; but the *affinity* of one liquid to another is no proof of their *identity*; and this was the point contended for by the partisans of urinous vomiting." This is a new method of criticising; here the "Gleaner" gives me credit for more than I either expressed or even imagined. As to his doubting whether any affinity of the one liquid to the other could have been found, *that* affinity is undisputed by evidence of the taste of the patient himself, in the first instance; and had I found the vomited liquid to contain the different salts which generally enter into the composition of urine, this *affinity* would have been as much as I could have desired; for *identity* no man could expect. And as to the "partisans of urinous vomiting," I know as little of them, and the theory they support, as I do of the Editors of the New Medical and Physical Journal of London.

W. Reid Clanny.

Sunderland, July 9, 1814.

PART II.

ANALYTICAL REVIEW.

I.

Essay on the Theory of the Earth. Translated from the French of M. Cuvier, *Secretary of the French Institute, &c. &c.* By Robert Kerr, F. R. S. and F. A. S. Edin. *With Mineralogical Notes, and an Account of Cuvier's Geological Discoveries.* By Professor Jameson. Blackwood.

In no part of Natural History has the acquirement of real knowledge been so slow, as in that which respects the formation and structure of the planet we inhabit: a circumstance depending, in a great measure, on the difficulty of obtaining opportunities of making the necessary fundamental observations; and partly, no doubt, on those who have attended to this study having been more disposed to devote themselves to the pleasing employment of inventing specious theories, than to the labour of seeking for and comparing instructive facts.

Whilst conjecture alone was relied upon, no progress whatever was made in this department of science: the ingenious hypotheses of Burnet and Whiston lead us only to regret that the learning and the labour of their inventors were so uselessly employed.

But when instructive specimens and observations began to be treasured, the advancement of our knowledge was considerably promoted; and even where the search for these valuable materials was instigated and directed by preconceived hypotheses, the result was seldom without material advantages. With the hope of substantiating the opinions they had formed, and with the intention of subjecting them to the test of positive observations, many mineralogists have employed themselves in actual research, and have thereby furnished us with the most valuable materials. Thus Woodward obtained a collection so rich and instructive, that its catalogue alone must yield material aid to every subsequent inquirer. Thus the celebrated Hutton and his zealous followers have stored up innumerable facts and observations, the importance of which must be universally admitted. By the same motives was the ardent Saussure impelled to the most laborious and useful researches; and under the same influence was the truly respectable De Luc in-

duced to explore a considerable part of Europe. Whether their hypotheses be established or not, the philosophical student must always feel grateful to those who have thus supplied him with innumerable *data*, by which he may be directed in his search for truth.

Of late the knowledge of fossils, and of the structure of the earth, has proceeded with rapid advances, attributable perhaps entirely to our having duly submitted to actual local researches, and to the careful comparison of fossil bodies with each other, and with those recent bodies to which they seem to approximate. In this mode of investigation, the justly celebrated Cuvier has proceeded with gigantic strides. With a knowledge of Comparative Anatomy unequalled, with opportunities of examining the skeletons of recent animals beyond those which are yielded in any other situation, and living on perhaps the only spot where such fossil remains are to be found, he has with unabating ardour proceeded in the most tedious, but successful investigations of the fossil remains of animals until now unknown. These inquiries being, for the present, brought to a close, he has in the work before us, collected his observations on his discoveries into, as it were, one view; with the hope of better marking their respective bearings, and of better ascertaining how far they may aid us whilst striving to learn the state in which this planet may have existed, even previous to the creation of man. Having referred to the discoveries respecting the mechanism of the universe, he asks, "Would it not also be glorious for man to burst the limits of time, and, by a few observations, to ascertain the history of this world, and the series of events which preceded the birth of the human race?"

After remarking, that the traveller passing through fertile plains covered with abundant vegetation, would not be led from what he there observes to suspect that the surface of the globe has been much convulsed by successive revolutions and various catastrophes; he observes, that as soon as he digs into the soil, or climbs the hills which border the plain, or the vast chains which are elevated above these, his ideas change, from his viewing their interior structure, altered by the influence of the revolutions of very remote periods. At great depths, and in hills of considerable height, horizontal strata are found, composed of various substances, and containing almost all of them innumerable marine productions; the universal occurrence of these phenomena leading us to believe, not only that the sea has, at one period or another, covered all our plains, but that it must have remained there long, and in a state of tranquillity. Hence, he observes, it is evident that the basin or reservoir containing the sea, has undergone some change, either in extent, or in situation, or in both. Farther examination

shews that other strata, containing different species of shells, &c. exist in various degrees of inclination, on which the horizontal strata may even be seen to rest. Hence are we led to conclude that the inclined strata are more ancient than the horizontal; and that having necessarily been formed in a horizontal position, they have been subsequently shifted into their inclined or vertical position, and that too before the horizontal strata were placed over them. There had therefore been, at least, one change in the basin of that sea which preceded ours, by which revolution, not only their present inclination was occasioned, but also their projections above the level of the sea.

That these revolutions have been numerous, is indicated from the great differences observable in the several strata; and particularly from such as respects the animal remains which they contain: and from the vast number of these, as well as from the state in which they are found, the suddenness with which these changes have been sometimes effected, may be fairly inferred.

Proceeding to the examination of the primitive or primordial mountains, surmounting and dipping under the shelly strata, we find granular limestone, granular quartz, slate, granite, &c. evidently deposited from water, and from water not supporting any living bodies. These primitive masses have also been the subjects of violent changes, both previous and posterior to the formation of the secondary strata.

In vain, M. Cuvier observes, shall we seek among the various forces which still operate on the surface of our earth, for causes competent to the production of those revolutions and catastrophes of which its external crust exhibits so many traces. Satisfied also that no successful explanation of these phenomena has been given, he directs the philosophical inquirer to the study of extraneous fossils, by shewing their importance to the science of Geology.

P. 54. "It is to them alone that we owe the commencement even of a theory of the earth; as but for them, we could never have suspected that there had existed any successive epochs in the formation of our earth, and a series of different and consecutive operations in reducing it to its present state. By them alone we are enabled to ascertain, with the utmost certainty, that our earth has not been always covered by the same external crust; because we are thoroughly assured that the organized bodies to which these fossil remains belong, must have lived upon the surface, before they came to be buried, as they now are, at a great depth. It is only by means of analogy, that we have been enabled to extend to the primitive formations, the same conclusions which are furnished directly for the secondary formations, by the extraneous fossils; and if there had only existed formations or strata in which there

were no extraneous fossils, it could never have been asserted that these several formations had not been simultaneous."

"It is also owing to these extraneous fossils, slight as is the knowledge we have hitherto acquired respecting them, that we have been enabled to discover the little that we yet know concerning the revolutions of our globe. From them we have learned that the strata, or at least those which contain their remains, have been quickly deposited in a fluid; that the variations of the several strata must have corresponded with the variations in the nature of the fluid; that they have been left bare by the transportation of this fluid to some other place; and that this fact must have happened more than once. Nothing of all this could have been known with certainty, without the aid of extraneous fossils."

After the arguments which prove that none of the large species, at least of the quadrupeds, whose remains are now found imbedded in regular rocky strata, have any living analogies, we arrive at our author's ingenious observations on the principles which direct the mode of distinguishing the fossil bones of quadrupeds. Every organized individual, he observes, forms an entire system of its own; all the parts of which mutually correspond, and concur to produce a certain definite purpose, by reciprocal reaction, or by combining towards the same end. Thus in the carnivorous animal the organs of sense are constructed for discovering its prey, the organs of motion for pursuing it, the claws for seizing it, the teeth and jaws for dividing and devouring its flesh, and the viscera for digesting it. Hence any one of these parts taken separately, indicates all the other parts to which it has belonged; and by the careful survey of any one bone by itself, M. Cuvier observes, a person who is sufficiently master of the laws of organic structure, may reconstruct the whole animal to which that bone had belonged. Thus the print even of a cloven hoof clearly indicates to the observer the forms of the teeth, jaws, leg-bones, thighs, shoulders, &c. of the animal which left the mark. In the same manner he observes, that when we find merely the extremity of a well-preserved bone, we are able by careful examination, assisted by analogy and comparison, to determine the species to which it once belonged, as certainly as if we had the entire animal before us. M. Cuvier acknowledges that he enjoys every kind of advantage for such investigations that could possibly be of use, by his situation in the Museum of Natural History, and from having collected skeletons of all the genera and subgenera of quadrupeds, with those of many species of some genera, and even of several varieties of some species.

By his researches he has been enabled to ascertain and class the fossil remains of 78 different fossil quadrupeds, in the viviparous and oviparous classes.

Of these,	49	are distinct species, hitherto unknown to naturalists;
	11 or 12	may be identified with species already known;
	17 or 18	have considerable traits of resemblance to known species.
	78	

Of the 49 new species,	27	are referable to 7 new genera;
	22	belong to 16 genera or subgenera already known.

Of the 78 species,	15	belong to 11 genera or subgenera of of the class of oviparous animals;
	63	to the mammiferous class.
	78	

Of the 63 species belonging to the mammiferous class,

32	are hoofed, but not ruminant, and	reducible to 10 genera.
12	are ruminant and	2 genera.
7	are gnawers (*rosores*)	6 genera.
8	are carnivorous quadrupeds	5 genera.
2	are toothless	to the genus, sloth.
2	are amphibious mammifera.	

M. Cuvier observes, that as it is reasonable to believe that shells and fish did not exist at the period of the formation of the primitive rocks, so we may conclude that the oviparous quadrupeds began to exist along with the fishes, and at the commencement of the period which produced the secondary formations; while the land quadrupeds did not appear upon the earth till long afterwards, and until the coarse shell-limestone had been already deposited, which contains the greater part of our genera of shells, although of quite different species from those that are now found in a recent state. But although, as in this island, the remains of animals shew that dry lands and fresh waters must have existed before the formation of the chalk strata; yet neither before, nor during the formation of the chalk strata, do we find any fossil remains of mammiferous quadrupeds. The bones of mammiferous sea-animals are, indeed, found in the coarse shell limestone which immediately covers the chalk strata in the neighbourhood of Paris; but no bones of mammiferous land-quadrupeds are found in that formation. From every observation he has made, M. Cuvier agrees with those who have studied the subject in this country, in the late existence or creation of mammiferous quadrupeds;

and concludes that these animals have only begun to exist, or at least to leave their remains in the strata of our earth, since the last retreat of the sea but one, and during that state of the world which preceded its last irruption.

The bones of those animals, now entirely unknown, as the palæotheria, anaplotheria, &c. are found either in the regular strata that have been deposited from fresh water, or in certain alluvial beds of very antient formation. But the bones of unknown species belonging to known genera, or to genera nearly allied to those that are known, as the fossil elephant, rhinoceros, hippopotamus, and mastodon, are only contained in these alluvial formations, and never in regular rocky strata. Whilst the bones of species which are apparently the same with those that now exist, are always found in the latest alluvial formations.

These observations are fully confirmed by the facts which are observable in this island. It is not however merely for the purpose of confirmation that a reference is here made to some of these facts; it is rather with the intention of pointing out some of those accordances and of those varieties, by the examination and comparison of which the study of Geology cannot but be considerably assisted. Plants which have grown on dry land, and shells, the inhabitants of which belong to fresh water, are frequently found alternating with coal and with marine remains at considerable depths. Oviparous quadrupeds with fishes are not found but in the somewhat higher strata, containing the lyas. Above these, marine remains, shells, and particularly ammonitæ and belemoritæ, with alcyonia and sponges, are found in the green sand and in the other strata of an approximating nature, such as the Blackdown sand stone and the Portland free stone. Over these is chalk marl, with beds of clay, containing ammonitæ, differing very much in their specific characters from those of the preceding strata, and accompanied by other multilocular shells, varying even in their generic characters from the shells of any other strata. On these are disposed strata of flinty chalk, in which no multilocular shells, and but very few remains similar to those found in the preceding strata are found. Above the chalk is an immense bed of blue clay, which like an alluvial deposit contains land and fresh water shells, mixed with fossil wood and a prodigious variety of unknown fossil fruits and seed vessels. The blue chalk is partially covered with beds of sand and gravel, and on the eastern side of the island, through great part of Essex, Suffolk, and Norfolk, the gravel is mixed with shells, in very great numbers, many of which are hardly distinguishable from the shells existing in our present ocean. In beds accompanying the upper part of this blue clay, are the remains of elephants, rhinoceroses, hippopotamuses, stags, oxen, &c.

Not being furnished by the French Geologists with a sufficiently particular enumeration of the strata beneath the chalk as they occur in the neighbourhood of Paris, we possess not the means of making, as to this series, the wished-for comparison: With respect to the chalk strata, and particularly that which is accompanied by nodular flints, the fossils determine the identity, or at least the close agreement, of those which are found in this island and of those which exist in the neighbourhood of Paris.

The strata discovered above the chalk in the neighbourhood of Paris, in some of which the fossil remains of unknown animals have been discovered, are particularly interesting, from the circumstance of similar strata not having been hitherto noticed in any other part of Europe. On this side of the channel, indeed, some slight traces of these marine and fresh water formations have been detected. In the neighbourhood of Woolwich, and lower down on the Essex coast, fossil shells are found, which, with their matrices, appear to agree pretty closely with some of those described by Brongniart and Cuvier. In the Isle of Wight, Mr. Webster has found several decided small patches of some of these strata in nearly a vertical position, with their proper fossils imbedded in them. But in no instance do any bones, similar to those existing in the neighbourhood of Paris, appear to have been found elsewhere. In what other parts of the world any traces of these superior strata are to be found, is a problem worthy the attention of the Geologist.

The arguments adduced in this Essay, which are employed to prove, that the extinct species of quadrupeds are not varieties of the present existing species; that there are no human bones in a fossil state; that the population of the world is but recent; and that its present surface is not of very ancient formation; must yield considerable interest. Indeed, it is without the least hesitation, that we earnestly recommend the perusal of this work to every one who considers the changes which the surface of this planet has undergone as worthy of inquiry.

The present article, it may be observed, partakes more of an abstract than of a critical examination; a circumstance which arises from the nature of the work itself, which, as it is chiefly occupied by describing the means which the author possessed, the modes of investigation which he adopted, and the success which attended his inquiries, with the direct legitimate inferences which he has drawn from his own discoveries, and the observations of others, presents little or nothing that can demand critical remark. The translation, by the late Mr. Robert Kerr, appears to be executed with great fidelity.

The mineralogical notes, and the account of Cuvier's geological discoveries, by Professor Jameson, form a valuable addition to the work. Speaking of the elephant, he says, "Only one fossil species has hitherto been discovered. It is the *mammoth* of the Russians. It differs from both the existing species, but agrees more nearly with the Asiatic than the African species." And in a note, Mr. Jameson observes that—"these three species are well distinguished by the appearance of the surface of the grinding teeth, as is shewn in Plate I." But, on looking at the plate for the representation of the "only one fossil species," we find an exact copy of Plate XX, Fig. 6, of Mr. Parkinson's *Organic Remains of a former World;* and which the author of that work employed for the express purpose of shewing the probable existence of more than one species of fossil elephants.

II.

A Treatise on the Nature, Causes, and Cure of the Endemic or Yellow Fever of Tropical Climates, as it occurs in the West Indies; to which Europeans are more particularly subject on their first arrival. Founded on Principle, and illustrated by the Writings of, and Cases from, various Authors of different Periods. By Charles Powell, lately from the Island of Antigua. 8vo. pp. 56. Callow. London. 1814.

Commensurate with the importance of the investigation have been the numbers of writers who have professed to elucidate, by their observations, the cause and nature, and by their experience to establish the mode of treatment of the Endemic of the West Indies, commonly known under the appellation of Yellow Fever.

To examine the various theories, contradictory statements, and opposing doctrines to which it has given birth, would be indeed a task, such as, if we even possessed competent knowledge and ability, would require no common share of courage to attempt, and more than ordinary physical powers to accomplish.

Unsettled as opinions still are upon every point connected with this disease, it cannot excite surprise to find new labourers in a field presenting so wide a range for research and observation; and wherein a successful result would be attended with much honour to the professional character, and the most genuine satisfaction to the mind of the philanthropist and the patriot.

Reflecting on these circumstances, "A TREATISE," announced with so ample and promising a title-page as the one before us, momentarily excited our hopes; but we say momentarily, because a doubt naturally arose with the conclusion of the page, and remarking the magnitude of the pamphlet, lest the promised pledge should not be redeemed in *fifty-six pages* by "Mr. Charles Powell, lately from the Island of Antigua!"

Encouraged by the unsettled state in which the question of the cause and nature of the Yellow Fever, and consequently its treatment, is left, notwithstanding the writings of Moseley, M'Lean, Jackson, Bancroft, and Chisholm, *cum multis aliis*, our author has boldly entered the lists, regardless of the speculations of his predecessors, and at once points out, "*upon chemical and physiological principles*," "the nature, causes, and cure of the Endemic or Yellow Fever of Tropical Climates."

This *Treatise* is dedicated to Dr. Harness, on account of "the official medical controul" he possesses.

We are informed by Mr. Powell, how ignorant former authors were of "Principles," and upon what grounds he has presumed to adopt those peculiar to himself. But he shall speak for himself.

"Before the nature of caloric had been established upon the basis of truth, it would have been a vain task to have attempted to account for the phenomena of this disease. Having in the course of *my reading* become acquainted with the properties of this agent, its diffusibility, its endeavouring to bring all bodies to an equilibrium of warmth, and the superior power which one body possesses over another in transmitting or retaining it, and likewise its agency in promoting the process of fermentation in vegetable, and that of putrefaction in animal substances, I thought I had here sufficient data to go by, in enabling me to account for the various circumstances relative to this fever. I consequently assumed it as a principle, presuming that its gradual accumulation will produce a putrid diathesis, and its too sudden abstraction inflammatory affections."—Preface.

Mr. Powell again favours us with his opinion, that—

"The endemic fever of tropical climates is of a putrid nature; its cause more especially depending upon heat, and its cure requiring such applications, as will most effectually counteract the diseased state which heat has been the chief means of producing."—p. 2.

The *nature* of this disease being thus philosophically explained, we are next assured that "heat, (perhaps, says our author, it would be more proper to say, solar heat,) combined and modified with certain causes, *is* absolutely necessary to the production of this fever."—p. 5. In the next paragraph, Mr. P. says, "Heat and

moisture are *not* necessary to its production, &c." and again, that "heat *alone* seems peculiarly indispensable to its production." p. 6. Perhaps it is owing to these *trifling* contradictions, or perhaps it is ascribable to the dullness of our comprehensions; but we really do not understand this illustration of Mr. Powell's principles.

However, we are willing to ascribe it to our dullness, and shall now pass on to the author's "indications of cure," which "agreeably to the principles adopted," are:

"1. To evacuate the alimentary canal per anum, and abstract redundant heat from the whole surface of the body. 2d. To correct any remaining degree of putrescency, and rest on the strength of the system."—p. 7.

Mr. Powell has an objection to evacuation by the exhibition of emetics, in which we believe he is correct, and his ideas are certainly supported by the advice of many experienced practitioners. But, conformably with the first indication, and with a view to clear the bowels, and to abstract redundant heat "from *the internal surface* of the body; the solutions of the neutral salts are, of all purgatives, the best adapted to this end." And to explain their beneficial effects, it is asked: "how can this be accounted for, but upon the principle of their abstracting caloric, while they remain within it (the stomach)?"—a question we must, to prove our diffidence, leave to more able physiologists to answer. From *the external surface*, heat may be abstracted by the ordinary means of cold affusion, &c. The second indication of cure is to be effected by tonic and antiseptic medicines, assisted by diet, with the moderate use of wine and spirits.—p. 13. But (and our author had very nearly forgotten it), in p. 51, it is recollected, that "there is still one more remedy that has been employed," "it is calomel." Its "beneficial effects," he conceives, "principally depend upon its producing, *in the language of modern chemistry*, an evaporating surface."

Notwithstanding "the opportunities," Mr. Powell had of witnessing it (the fever), while engaged in a very extensive private practice *under Dr.* Daniell, in the island of Antigua, the only authority adduced "for his present ideas upon the subject," are extracts of cases and passages which he thinks favour his peculiar views, from the works of Drs. Hume, M'Lean, and Jackson. But that astonishment at the profundity of our author's conceptions may have its limits, we are told that "for the foundation of these principles, I was indebted to Murray's System of Chemistry."

We certainly should not have been induced to have apportioned so much of our pages to the notice of such absurdities, as we could have little dread of any injury they would produce

on the thinking part of the medical community. It is not on account of this class of our readers, however, but to prevent, on the ardent and speculative minds of inexperienced youth, an improper impression from such crude and visionary theories and speculations, that we have taken up this pamphlet.

That the arts and sciences are advanced and improved by a free discussion, and a ready channel of communicating discoveries, and observations, cannot be doubted. But where experience is wanting to guide the judgment; such a work as this is, it is our duty to hold up as a beacon to the unwary. The Ephemera is but the creature of a day, sports in the wantonness of life, propagates its species, and having fulfilled the purposes of its creation, dies; but first entails the plague of its existence upon society.

III.

A Practical Essay on the Diseases of the Vessels and Glands of the Absorbent System: being the substance of Observations which obtained the Prize of 1812, *offered by the Royal College of Surgeons in London: to which are added, Surgical Cases, with Practical Remarks.* By William Goodlad, Surgeon, Bury, Lancashire, Member of the College, &c. 8vo. p. 288. Longman and Co. London, 1814.

We are of opinion, that nothing contributes so much to advance knowledge, as holding out the lure of prizes for the best dissertations on particular scientific subjects. We do not regard the honour conferred on the successful candidate; nor do we even expect to find the dissertation, which may obtain the approbation of the judges, very important in observation, or very rich in facts; but we conceive that great benefits must result from a number of men being set seriously a thinking, who might otherwise have lived and died in a state of almost complete apathy; not from deficiency of talents, but from want of opportunity to exercise them. Impressed with these feelings we conceive it to be our duty to take the earliest notice of the volume before us.

In the preface we are informed that it is the object of the author to treat of those diseases only, "where the vessels or glands of the absorbent system are primarily affected, and where the diseased action necessarily tends to disorganize their structure."—p. v. Fungus Hæmatodes, Carcinoma, and some other species of Sarcoma, are nevertheless omitted; and Mr. Goodlad candidly acknowledges, that the pathology of this

class will be found to be defective in his work; but he considers the omission of less importance, "since Mr. Abernethy's excellent work is in the hands of every surgeon."—p. vi. Let us now examine in what manner he has performed that part of his task to which he has more closely attended.

The first chapter contains the anatomy and physiology of the absorbent vessels and glands. The opinions of the most celebrated writers on the structure of the absorbent system are stated; but, from a want of perspicuity, it is difficult to ascertain, exactly, the sentiments of our author as to the disputed points. Thus we cannot positively say, after once reading, whether Mr. Goodlad adopts the opinion of the muscularity of the absorbent vessels: for he first advances many ingenious arguments to prove that this form of structure is not requisite for the due performance of their functions; and that the appearance of fibres is by no means demonstrative of muscularity; yet, he afterwards appears to lean to the opinion which he has just combated, and describes the muscular coat of the absorbents.

"We have evidence," says he, "that muscular action is not necessary to counteract the laws of gravitation in organic structure. It is well known that the sap of vegetables rises many times higher than the height of man, and moves, though unsupported by valves, with a force more than equal to the pressure of forty-three perpendicular feet of water:—in the cut end of a vine, it supported, in the bleeding season, a column of thirty-eight inches of mercury.

"Their valvular structure, their small supply of oxygenated blood, their dissimilarity to other muscles, and the continuance of their action after death, furnish additional evidence against this opinion. Like the veins too, they become varicose, a fact which appears irreconcileable with muscular action. Neither does it appear that their action can be explained, if their muscularity be granted; for the contractile power of arteries increases as their diameter diminishes; and if the absorbents observe this law, how is chyle or lymph admitted into them?"—pp. 7, 8.

In the passage we have just quoted, there is evidently a seeming admission of the opinions that the absorbents possess no muscularity; but that this is not our author's opinion, he proceeds to shew, by stating that a visible fibrous structure, and red colour, are uncertain guides in the physiology of muscles; and continues—

"Since, then, muscular action exists under such varieties of external character; it becomes necessary to inquire into, and to be governed by the powers which the absorbents possess, rather than by their structure. If their contraction, on the application of external stimuli, be admitted as a proof, their muscular power has been long demonstrated: Haller produced it by the applica-

tion of sulphuric acid to the absorbents of the liver; and saw them propel their contents with celerity, on the admission of cold air into the abdominal cavity. They possess this power in all red blooded animals, and it not only exists from birth, but is so tenaciously retained that it is not immediately destroyed by death. They contract too with considerable force, for they have been frequently ruptured by their own action, and though they are dilated and form varices, it most probably arises from paralysis of the muscular, or rupture of a small portion of their internal coat."—pp. 10, 11.

With regard to the structure of the glands, our author adopts the opinions of Cruickshanks and Abernethy, who maintain that they are either cellular, the cells communicating with each other, or simple bags; and not formed of convoluted vessels, as many other celebrated anatomists have supposed. Our own opinion is, that the structure of these important organs has not yet been satisfactorily investigated. As to the immediate action of these glands on the fluids that pass through them, our author has ventured an hypothesis to which we must allow ingenuity, but certainly cannot give our assent to its probability; viz. That the mucaginous fluid, which Mr. Abernethy supposes they secrete, "acts upon the lymph, like the gastric juice upon the food."

"The uniform qualities and appearance of that fluid cannot be otherwise explained, for if they had no power of changing its properties, we should have bone, oil, &c. floating in it. The importance of the glandular functions, may also be inferred, from the great care which nature has observed, in not allowing any absorbent vessel to enter the trunk of its system, without having passed through them.

"Many other reasons might safely be urged which tend to establish this opinion. Milk, when injected into the veins of a dog, is immediately fatal; whilst if absorbed from the intestines it is highly nutritious."—p. 24.

Now we would ask whether bone, oil, and all the extraneous matters here supposed, are found floating in the fluid carried by the absorbents, before they enter the glands?

Chapter second describes the chemical properties of Chyle and Lymph, as far as these are to be found in the works of modern chemists and physiologists; but contains nothing with which the majority of our readers are not already acquainted; and it does not appear, that our author has made any experiments whatever on this part of his subject.

After these preliminary details, Mr. Goodlad commences the examination of the diseases of the absorbent system, in chapter third, which treats of the "*Diseases of the Absorbent Vessels.*" In describing the inflammatory action, with which

these vessels are affected, our author endeavours to combat the opinion that the swelling of the lower limbs in phlegmasia dolens, depends on this diseased state of the absorbents; a sentiment which our experience, as will be afterwards seen, has led us to adopt.

"In phlegmasia there is no redness on the skin, nor is the pain confined to the course of the absorbents; it generally occupies the whole limb, and the swelling only becomes œdematous at a very protracted period of the disease. I am by no means disposed to assert, that inflammation of these vessels is never observed in the swelling of the lower extremities of lying-in women, but when it does exist, it depends, I conceive, on their participation in the general inflammatory action, and is, therefore, rather a consequence, than a cause of the disease."—p. 39.

The treatment of inflamed absorbents recommended by our author is judicious, but not novel. It consists chiefly in local cooling applications, and general antiphlogistic measures, when the primary ulcers, whence the irritating matter which has excited the inflammation has proceeded, are not of a nature to require peculiar remedies; such as mercury for example, when they are syphilitic. When pus is collected in the cellular membrane, he advises us either to endeavour to induce absorption by stimulating frictions; or, if this cannot be effected, to puncture the integuments to give an exit to the collected matter, and afterwards to apply a cold solution of sulphas zinci to promote adhesion.

In noticing the varicose state of the absorbents, an affection which fortunately is of rare occurrence, a remarkable case is quoted from Cruickshanks and Baillie, in which the thoracic duct was dilated to the size of the subclavian vein.

The rupture of absorbent vessels is as rare as their varicose state; but instances have occurred in which this has happened, both within the trunk of the body and in the extremities. When the former happens, chyliferous dropsy is the consequence, several instances of which are quoted by our author, the most remarkable of which, is a case recorded by M. Poncy, jun. in Saviard's Surgery: "The patient, who was only nineteen years of age, died after having been tapped the twenty-second time; and the quantity of chylous liquor which was evacuated, amounted to two hundred and eighty-nine French pints."—p. 47. Mr. Goodlad notices and refutes the opinion of the late Mr. White, that the proximate cause of phlegmasia dolens is a ruptured absorbent, occasioned by the pressure of the child's head, during the act of parturition, upon those absorbent vessels which pass over the brim of the pelvis." In the course of our own experience we have seen a very severe case of phlegmasia dolens occurring before parturition; and, in a female

who had previously had a large family, and in whom there was no cause likely to rupture a lymphatic, in the situation mentioned by White, even were it to be admitted that such an event could produce the disease. Although we do not mean to venture an opinion, yet we think there is some reason for thinking that the swelling of the limb proceeds from deep seated inflammation, probably rheumatic, which by degrees may extend to the lymphatics and inguinal glands, as these are sometimes evidently highly inflamed in this painful disease. The most successful mode of treatment which has yet been adopted, viz. bleeding with leeches in the groin, cooling applications, purgatives, and afterwards anodynes, with bark and stimulant frictions, seem to countenance this opinion.

With regard to the treatment of ruptured absorbents within the trunk, we cannot expect our author to point out any plan which is likely to be very beneficial: but, when in the extremities, and the vessel is connected with an ulcerated surface, he properly directs, that, "it may either be secured by a ligature, or touched by the argentum nitratum, which stimulates it to contract, or produces a deposition of coagulable lymph, and obliterates the tube."—p. 57.

The two remaining sections of this chapter refer to wounds, and obstructions of the absorbent vessels.

Chapter fourth, "*On the Diseases of the Absorbent Glands,*" is the most important in the volume, both from the nature of the subject, and the opinions advanced by the author. The three first sections, describing the nature of simple inflammation and ossification of the absorbent glands, with the requisite treatment of these cases, contain nothing particularly worthy of notice. In section fourth, which details "*The History of Scrofulous Absorbent Glands,*" a minute and very clear description is given of the progress of a scrofulous glandular tumour, from the period of its first enlargement, and after suppuration, through the ulcerative process, until either by the powers of art, or of the constitution, the ulcer heals. Our author divines the genus scrofula into three species; and we would willingly extract the description of the whole for the benefit of our junior readers, did our limits admit of it; but as they do not, and we should be sorry to mutilate the account, we shall extract that only of the second and third species.

"The second species of scrofulous affection in these glands which influences the progress of the ulcer, is attended with simple enlargement of the glandular substance, or of the adjacent parts. It is formed by the effusion of coagulable lymph, within the interstices of the part, into which blood vessels shoot, and it becomes organized, which often terminates the disposition to enlargement. But more frequently the swelling becomes the stimulus to

its own increase, and the distention it occasions produces an increased effusion, "the parts surrounding the tumour may be considered as the source from which it derives its nutriment," like other tumours "it grows by its own inherent powers," and continues to enlarge, until by a gradual condensation and adhesion of the surrounding cellular membrane, it approaches the skin and adheres to it. The tumour may produce these effects without causing much redness, and ulceration takes place in consequence of the distention, rather than by the participation of the skin in inflammatory actions. The size of the ulcer varies according to these circumstances; for where the inflammatory actions are considerable, the skin participates in them, and the adhesions which connect it to the gland are often stronger, than when that body has attained a greater magnitude, before the skin is affected by it. But, though the adhesions are firmer in proportion to the rapidity of the disease, it must also be acknowledged, that there is greater danger of the newly formed parts being destroyed, because the inflammatory action will continue after ulceration has taken place. Besides, the skin ulcerates in proportion to the actions it has to sustain; the diseased cellular membrane which surrounds the gland, becomes consequently exposed to a greater extent, and being unable to support diseased action, sloughs, and is separated; this separation exposes a second layer of cellular membrane, which sloughs also. This action continues until it extends to the substance of the gland, which has greater power of resistance, and gives rise to granulations. As the gland is, however, under the influence of disease, and is so much increased in size as to keep up the irritation in the surrounding parts, the granulations are broad, pale, and flabby, and the new skin is long in being formed.

"In the most indolent, and most frequent cases, a very small discharge, after ulceration has taken place, is sufficient to prevent the extension of the disease, and as little inflammation exists, the newly formed parts retain their vitality, and the ulcer is confined to a small space. Its surface is covered by a slough, which appears semi-transparent from a suffusion of a trifling watery discharge. The slough is very long in separating, and when it is partly accomplished, a single point of granulation shoots forth; but as the remainder of the slough continues attached, no cicatrization can take place.

"In the third species of scrofulous enlargement, I mean to include those cases where the abscess is formed in the substance of the gland, and where a portion of its parietes must be absorbed before ulceration can take place. If the cells of the gland are separated by adhesion, each cell may contain an abscess, and successive openings are formed for their discharge. This species seldom occurs."—pp. 84—87.

With regard to the "*Theory of Scrofulous Absorbent Glands*," which occupies the fifth section of this chapter, Mr. Goodlad justly observes, that to the great influence of the hu-

moral pathology, in giving a bias to the opinions of medical writers, is to be attributed the slow progress which has been made in developing the proximate cause of scrofula. Even Dr. Cullen fell into this error, notwithstanding his published declaration, that the general supposition of this disease being occasioned by an acrimony of the fluids, was purely hypothetical, "without any proper evidence of it in fact*." Our author conceives, that "almost every phenomenon of the disease appears to be conclusive" against the doctrine of an acrimony of fluids. "If the acrimony," he demands, "which is said to be both the cause and the consequence of scrofula, be circulated in the fluids, and deprive the system of its healthy action, why does not every wound assume this character? why does a healthy action follow the amputation of a scrofulous joint?" —p. 103. His own theory, which, however, we are obliged to collect from his arguments, as it is not directly stated, is, that the proximate cause of scrofula is an increased action, not sufficient to produce active inflammation in the parts affected; because it occurs in habits where debility is present, and indolent actions must of necessity be found. It is not our intention to give any opinion on this theory; but to leave our readers to judge for themselves, in laying before them the principle arguments of the author in support of it.

"It may indeed be taken as a general law, which appears strengthened by every fact with which I am acquainted, that no disease is regulated by alteration in the fluids; because on the one hand, the fluids cannot be what is called vitiated, but in consequence of imperfect or diseased actions: neither can they reproduce disease, but by exciting an action in the part to which they are applied, by which action, the progress and appearance of the disease will be regulated."—p. 112.

To bring, however, his opinions of the incorrectness of the humoral pathology to the test of experiment, Mr. Goodlad, with considerable boldness, determined to introduce pus from a scrofulous ulcer into his own system: and for this purpose the matter was taken from an ulcerated gland in the axilla, which was one of a chain of enlarged glands occupying the left side of the neck, and extending from the mastoid process to the axilla, in a boy who had been several years affected with the disease.

"I dipped a lancet in the discharge which thinly covered the sore, and immediately punctured the back of my left hand, between the extensors of the thumb and fore-finger. I withdrew the lancet, and having again covered the point with matter from

* Materia Medica, vol. i. p. 77.

the ulcer, I made another puncture on the anterior surface of the fore-arm, about two inches from the wrist, and between the pronator and supinator muscles.

"I had occasion to wash my hands soon afterwards, and found the friction of the towel produce a little heat and redness in the puncture on the hand, which continued about half an hour. The hand was afterwards exposed to cold in riding.

"The puncture on the hand occasionally felt warm during the day, but the arm was easy. A little redness was visible around each puncture, and the redness and heat gradually increased towards evening; transient springing pains also excited occasional attention.

"3rd. I perceived an itching sensation in each puncture, whilst in bed this morning, attended with a trifling heat. The redness continued during the day, and was a bright scarlet towards evening. No inconvenience nor soreness on being rubbed.

"4th. The redness around the punctures is much abated. No inconvenience.

"5th. Still less redness.

"6th. Punctures healed, though the marks were visible some days afterwards.

"I repeated this experiment several times, with a similar result."—p. 114, 115.

With regard to the peculiar constitution which attends scrofula, our author admits the ordinary opinion, that it is characterized by flaccidity of the muscular fibre; but contends that it may follow from any cause. The endeavour to account for the symptoms, by a supposed obstruction of the glands, he conceives is overturned by the fact that Soemmering "injected scrofulous glands with quicksilver, and found that the metal passed, with at least equal facility through them, as through others which were not diseased."—p. 120.

The general exciting causes of the disease, he considers to be cold, damp, meagre diet, sedentary employments, "and whatever can excite chronic inflammation."

"The relation between simple chronic inflammation and Scrofula, appears further demonstrated, by the exciting causes of the latter disease being such as would excite inflammatory actions; and by the glandular enlargement being formed by an effusion of lymph. It does not appear that any other action than inflammation, can produce an effusion of coagulable lymph, and if this action were not regulated by the common powers of the constitution, or of the vessels in the part, the diseased structure should be modified by it, as in Carcinoma."—pp. 124, 125.

In drawing these inferences, our author reviews, and successfully combats the opinions of Professor Russel regarding the existence of a peculiar or specific scrofulous virus; those of Dr. Percival, which ascribe the prevalence of glandular affections in

Manchester to the impurities of the water; and the visionary hypothesis of Dr. Lamb, that scrofula and other constitutional diseases arise from another supposed ingredient in water, which he calls the "septic poison."

In detailing the "*Treatment of Scrofulous Absorbent Glands*," Mr. Goodlad lays down some very judicious prophylactic rules, both with the view of improving the general health of weak and irritable children, and avoiding the exciting causes of inflammation. The exercise should be "regulated by the patient's strength;" there should be a daily, but moderate allowance of animal food; whilst "puddings, milk, rice, and other farinaceous matter, ought to constitute the remainder of his diet," abstaining entirely from "hot slopping liquors." Children liable to scrofula require "a considerable portion of time for sleep;" but their covering should be slight, in order to prevent night and morning perspirations. Our author strongly recommends the use of the shower bath, when "no pulmonic affection contravenes;" and prefers it to general bathing, "because children will generally bear a greater degree of cold when thus applied, than when immersed in the water." The temperature of the water should be regulated by the re-action produced; and in rubbing the child dry with rough cloths, the friction should be "continued a quarter or half an hour." With regard to clothing, the dress should be generally warm, particularly round the neck; and if an enlarged gland has already appeared, "a hare's skin fastened to the night-cap, and fitted to the part, may be substituted in the night, and worn with the fur side in contact with the skin."—p. 143.

The whole of the plan of treatment recommended to be adopted after the glands have actually begun to enlarge, so completely meets our own ideas of the subject, that we trust our readers will not be displeased with the copiousness of our extracts from this part of the volume.

"Cooling washes, and the early and frequent application of leeches, must be combined with this general treatment. The washes must not be of so low a temperature as to induce shivering, or to produce a cold; as it is by their continued use that they will take off the disposition to enlargement. The patient will not bear the loss of much blood, but we must consider that the advancement of the disease, and the long continued ulceration, will occasion much greater debility than the local blood letting; and it is the frequent application of this remedy, not its excessive adoption at one time, which I am anxious to inculcate. I wish it merely to relieve the indolently increased action, which attends the enlargement of the gland. This mode of treatment will produce a slow, but lasting effect, whilst more violent methods will weaken

or derange the constitution, and render it more liable to be acted upon by exciting causes. The bowels must be kept solvent rather than loose, but where there is sufficient power, an occasional and gentle purgative will do good, by producing a determination to other parts. Calomel is frequently administered for this purpose, but rhubarb will answer equally well, and will not only stimulate, but strengthen the bowels.

"Though these means have been persevered in until the inflammatory action be subdued, the tumour will scarcely be decreased in size. In the commencement it is generally built up of effused lymph, which sometimes becomes organized before the Surgeon has been consulted, or before the means which he has used have had the desired effect. But whenever we are assured that the tendency to enlargement is removed, a fresh mode of treatment should be adopted; we must now by stimulating applications promote the absorption of the tumour, care being taken that re-action is not produced.

"It is perhaps of little consequence what cooling washes are made use of, since they have an almost equal tendency to decrease arterial action by evaporation. When the progress of the tumour is arrested, it may be necessary, and is at least safe, to render the application more stimulating, so that whilst evaporation is continued, a gentle stimulus may be kept upon the surface; and this stimulus may be gradually increased as the parts are able to support it. To accomplish these ends, I apply a solution of the sulphate of zinc, and increase its strength from half a drachm to a drachm and a half of the salt, in eight ounces of water. Friction with the volatile or camphor liniment, combined with mercurial ointment, must then be regularly used; or, if the tumour be conveniently situated, an issue or seton may be inserted over it: a blister is perhaps more useful, if kept open by the savine cerate.

"Friction with the bare hand is recommended by Mr. Grosvenor of Oxford, and if persevered in, is of singular utility. My practice has fully justified the encomiums which have been bestowed on this remedy, and I should generally prefer it to the application of stimulating liniments, which soon abrade the surface of the cuticle, and render a continuation of the friction impossible. But the practitioner will often have much difficulty in prevailing upon his patient to use the friction to a sufficient extent.

"Electricity, as a means of promoting absorption, should not be passed over, for in some instances it is strikingly beneficial; but the adoption of these remedies in individual cases, must be left to the judgment of the practitioner, and needs not therefore be further insisted on.

"The progress of the tumour must be carefully observed, and if a disposition to enlargement appear, the stimulating plan should immediately be discontinued. In very irritable habits, this will be found particularly teasing, and the recurrence to leeches frequently necessary to prevent it. I have continued the applica-

tion of cooling washes to the part, after the friction, and I believe it will frequently be found to render these cases less troublesome.

"In the use of cooling washes, I have uniformly been governed by the principle of subduing the increased arterial action, and of regulating the temperature of the part, not of reducing it below the healthy standard. The use of them will not therefore be found inconsistent with the directions which have been given respecting clothing. In weak constitutions, warm coverings should be worn over whatever cooling applications are made use of, for a rapid evaporation does manifest injury, by deranging the constitution.

"If the cold which is produced by evaporation be very considerable, it will destroy the power of the part; the skin will assume a livid redness, which the surgeon may mistake if he do not attend to the temperature, for an increase of inflammation; and by persevering in the means of reducing it he will cause the parts to slough away. This appearance, and these effects, may easily be produced in weak habits, if the glandular enlargement be considerable.

"When the practitioner has recourse to stimulating applications, his efforts will be much assisted by the exhibition of small doses of calomel, every night and morning. If the bowels be irritable, a grain or two of the extractum conii may be combined with it, and if the appetite be defective, three or four grains of carbonate of iron may be given also.

"To prevent salivation, and to increase the effect of the mineral, its use may be occasionally omitted a few days; or a purgative may be added to it. Where the habit is weakly, and the bowels irritable and loose, the former means should be adopted; but where the constitution is naturally good, the use of an occasional purgative can seldom do harm, and will often be materially useful.

"By persevering in the practice which I have pointed out, and by regulating the constitution of the patient, I feel confident that a surgeon has means in his power which are fully adequate, in most cases, to produce the resolution of these tumours."—pp. 141—149.

Should the tumours, however, proceed to suppuration, Mr. Goodlad advises the abscess to be opened before the skin be ulcerated, as its obliteration is then facilitated by adhesion, and the spreading of the inflammation is prevented by the continuance of the cooling applications. In support of the propriety of this mode of treatment, several cases are detailed; and, with a degree of candour highly commendable, these are in part counterbalanced by a few in which the plan was not so successful. In every instance it is advisable to save as large a portion of the skin as possible; but should this not be effected, and the sore become irritable and spreading, our author recommends the application of "an aqueous solution of opium or of hemlock;" and, afterwards a solution of sulphate of zinc,

or of any other metallic salt. When "the granulations rise above the surface, and are broad and flabby, and where pressure cannot be applied," Mr. Goodlad thinks the sorrel poultice useful; but he deprecates the universal application of sea water, particularly "when the skin is ulcerating," and the sore irritable.

With regard to the constitutional treatment of scrofula, our author properly rejects the idea of specifics. Of the effects of muriate of lime, which he has seen tried "in at least one hundred cases;" he says, "I was not able to distinguish one which amended from the use of it, where the amendment could not otherwise be satisfactorily explained."—p. 172. In the latter stages of the disease, when external stimulants produce no re-action, "mercurial medicines may be given with great advantage, and will facilitate the absorption of the tumour:" (p. 173.) but when the ulcers are in a state of inflammation, and "the burrowing disposition continues, every preparation of mercury must be carefully abstained from," and even "recommenced with great caution after it is subdued."—p. 176. Cinchona is beneficial, when exhibited in protracted cases of the disease; and should be exhibited in as large quantities as the patient can bear. But,

"In very irritable habits, granulations will shoot forth, which, though rounder and paler than is desirable, give reason to believe, that the sore will soon heal. If the surgeon give bark in considerable quantity, it will disorder the bowels, and the granulations will on a sudden be destroyed, leaving the ulcer of a greenish colour, with perhaps one or two points of granulation sprouting from its surface. This will sometimes happen without any perceptible cause, and is particularly to be dreaded, if mercurial preparations be injudiciously given."—p. 180.

The conium, Mr. Goodlad considers as an useful auxiliary in cases of great irritation, particularly if it be combined with calomel or preparations of iron, "when either of those [*these*] remedies is indicated."

The volume terminates with a *Case of Inguinal Aneurism*, republished from the Edinburgh Medical and Surgical Journal; a *Case of Gun-shot Wound;* and *two Cases of Congenital Umbilical Hernia;* the treatment of all of which we regard as very creditable to our author. Indeed the whole volume has afforded us considerable pleasure in the perusal; and, although in his style of composition, and in the arrangement of his materials, Mr. Goodlad is less perspicuous than we could wish, yet, we most cordially subscribe to the correctness of the adjudication which bestowed on him the prize given by the Royal College of Surgeons.

Among the improprieties of composition, which we have

hinted at, we would inform our author, that the relative *whose* is employed by good writers only, when the antecedent is an animated being, and therefore such expressions "substances whose," "abscess whose," &c. are at least inelegant. In philosophical writings metaphors are scarcely ever admissible, but when employed they should be strictly appropriate: in the following sentence, "an *island* of skin will sometimes form on the surface of the sore," p. 84, the simile is hyperbolical and affected. The expression, "an abscess attended with an *increased organization*," p. 121, is to us unintelligible. But these are minor errors, where there is much otherwise to commend.

PART III.

SELECTIONS.

Dr. Jaquinto, who had been physician to a Pope, and to our King James, was believed to have a remedy for Phthisis, which he discovered in the following manner:—"He went into the marshes of Essex, where they put their sheep to cure them of the rot, where he lived some time purposely to observe what plants the sheep did eat, of which herbs he made his medicins for consumption."—It can be no more than a mere curiosity now to inquire what plants Dr. Jaquinto had selected for the composition of his remedy: that it would not cure consumption of the lungs can be readily understood. The analogy between phthisis and rot in sheep is too loose to hold any comparison; neither is the rot cured by any plants on which sheep feed, but by the dryness of the land. The relation proves, however, that very long it had been understood that marsh lands were unfavourable to the production or continuation of this disease in sheep. The experience of the present day proves the same fact.—*Aubrey's MSS. in the Ashmolean Museum.*

Russian Remedies for Hydrophobia.—Various notices having been communicated from the Government of Orel to the Imperial Academy of St. Petersburgh, regarding a plant known in that province under the name of Мампiонка, and successfully employed for the cure of persons bitten by mad dogs; the Academy determined on sending a botanist to examine the plant upon the spot, and to ascertain the truth of the numerous recitals of its medicinal virtues. M. Smolenski was selected for this purpose, and reported that three plants are employed against the bite of mad dogs, in different parts of the Government of Orel: the yellow meadow rue, *Thalictrum flavum*; the narrow-leaved meadow rue, *Thalictrum angustifolium*; and the branching larkspur,

Delphinium consolida. The method of employing these plants is not stated.—(*Memoires de l'Academie Imperiale des Sciences de St. Petersburg*, vol. i. p. 121.)

Before the Conquest, Leprosy was not known in England; for Master Camden, writing of Burton Lazers in Leicestershire, saith*, "primis Normannorum temporibus collecta per Angliam stipe nosocomium hoc constructum ferunt, quo tempore lepra (quæ à nonnullis elephantiasis) gravissime vi contagionis per Angliam serpsit." And it is called morbus elephantiasis, because the skinnes of lepers are like to elephants†. And the law of England for the removal of the lepers from the society of men to some solitary place (by the writ de leproso amovendo propter contagionem morbi prædicti, et propter corporis deformitatem, as some say,) is grounded upon God's law.—*Coke Litt.* 135. *b.*

Singular disease.—Among the Nogays, a Tartar tribe dwelling between the Black Sea and the Caspian, a disease, mentioned by Hippocrates in his Treatise on Air and Vapour, still exists. "There are," says he, "among the Scythians, persons who come into the world as eunuchs, and do all the work of women; they are called *Enaræans*, or womanish. The people of the country consider this defect as a visitation of the gods, and pay respect to these Enaræans in order to divert a similar misfortune from themselves. For my part, I believe, that this evil is no more sent by the Deity than any thing else we see; for I think every effect has its cause, and that nothing can happen without one."

Reineggs is the first modern writer who mentions the existence of this disease among the Nogays, who are at present subjects of the Russian empire. Count Potocki, when travelling along the Kuma, in 1798, met with an old man who had this disease. He informs us, that such persons are called Coss; and that the disease is not unknown in Turkey, where those subject to it have received the same appellation. The disease, as far as it has been described by Reineggs and Potocki, is distinguished by the following symptoms. It only attacks old persons. The skin grows wrinkled, the beard falls off, and the person assumes completely the appearance of a woman. He becomes incapable of propagating his species, and his sentiments and actions lose their masculine character. In this state he is obliged to shun the company of men, and to associate with women, whom he perfectly resembles. The disease is now rare.—*Travels in the Caucasus, by J. Von Klaproth.*

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* Camden in Leicestershire, verbo Burton.

† Levit. c. 13, v. 44, 45. Num. c. 5, v. 1, 2. 4 Regum, c. 15.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PHYSIOLOGY.

I.—The French physiologists have lately laboured to determine the nature of the action of vomiting, and how far the stomach itself operates in expelling its contents while under the influence of sickness. As several essays have been published on this subject, we shall take them into consideration, in their chronological order, and endeavour to give our Readers some idea of the doctrines each of their authors wishes to promulgate. The first, in order of time, is that by *M. Majendie,* Professor of Anatomy and Physiology, which was read to the First Class of the French Institution.

The experiments of M. Majendie, which were repeated before many of the members of the Institution, were made upon dogs and cats, as these animals vomit with more facility than most others.

In one of the first experiments M. Majendie made an incision, of about two inches in length, into the abdomen, through which, by introducing two fingers, it was perceived that during vomiting the stomach remains inert, and that the food or fluids which it contains are expelled from it, by the diaphragm and abdominal muscles being thrown into action and compressing it. During each fit of vomiting the fingers could distinguish the movements of the diaphragm and abdominal muscles, and could feel also that the stomach emptied itself without diminishing its bulk, owing to the atmospherical air getting into it, and taking the place of the chymous matters which were ejected. This distention of the stomach by the air assists greatly the compressing action of the diaphragm and abdominal muscles. On enlarging the incision, and drawing the stomach through it, the vomiting ceased, owing to its being no longer under the influence of the compressing powers. The fits of nausea, however, and the efforts to vomit could be renewed at will, by imitating the compression of the diaphragm and the parietes of the abdomen on the stomach, with the hands placed before and behind that organ. At each compression, vomiting was always

excited. The stomach, drawn out of the abdomen, and not compressed, remained at rest, although tartar emetic was ejected into the veins of the animal.

In another experiment the muscles in the anterior part of the abdomen of a dog were raised, so that the viscera appeared covered only by the peritoneal lining of the belly. On injecting some tartar emetic into a vein, vomiting was produced by the action of the diaphragm alone, and the resistance afforded by the linea alba to the organs compressed by that muscle.

By dividing the phrenic nerves, so as to prevent the diaphragm from being thrown into action, no vomiting could be excited by injecting tartar emetic into the veins, nor even by putting into the stomach itself acrid or irritating substances.

Finally, having carefully taken up with a ligature the vessels of the stomach, and separated this organ from the œsophagus and duodenum by an incision close to the point of their attachment, he removed it entirely from the body, and substituted for it a hog's bladder, neatly fitted to the œsophagus by means of a gum elastic canula, and tied with a thread; and then closed the wound of the abdomen by means of a suture. Into this artificial stomach a quantity of coloured fluid was first introduced, and afterwards some tartrate of antimony and potass injected into the veins. After a few minutes the animal became sick, and made efforts to vomit, and actually threw up the coloured fluid contained in the bladder. After this experiment the abdomen was again opened, and it was visible that, on each effort to vomit, a column of air passed into the bladder, in the same manner as if it had been the stomach itself.

From these experiments, and some others of a similar nature, M. Majendie has drawn the following conclusions :—

"1. The stomach," says he, "does not appear always to contract during the act of vomiting, which may take place without even any indication to contraction in that viscus.

"2. The pressure exerted by the diaphragm and the abdominal muscles on the stomach appears to be sufficient for producing vomiting.

"3. In certain cases, during sickness, atmospherical air finds its way into the stomach.

"4. The tartrate of antimony and potass injected into the veins, instead of acting upon the stomach, as might be supposed, excites a convulsive contraction of the diaphragm and the abdominal muscles."

Such are the opinions of M. Majendie. The next paper on this interesting physiological point is by Dr. Maingault, of the Faculty of Paris, and Professor of Anatomy and Physiology. It tends directly to disprove the conclusions of M. Ma-

jendie, and to prove that vomiting may take place without the action of the abdominal muscles and the diaphragm.

M. Maingault, after having opened the belly of a dog, and dissected off the abdominal muscles, produced a strangulation of the intestine, by which means several vomitings were excited.

In another experiment, the phrenic nerves having been divided, a strangulation of the intestine, produced by drawing it through a small opening of the abdomen, vomiting was equally excited, as in the former experiments.

In experiments, however, upon other dogs, our author, after cutting the phrenic nerves, made a section of the abdominal muscles, and raised a portion of the diaphragm down to the phrenic nerve; yet after having tied a fold of the intestines, so as to produce strangulation, no vomiting was induced, although, during the whole time, the animal was made to swallow different substances.

The following is the most singular of Maingault's experiments, as it is in direct opposition to the conclusions drawn by M. Majendie from his experiments. After removing the abdominal muscles and the diaphragm, vomiting was excited by injecting tartar emetic into the veins; a fact which, if correctly stated, proves that vomiting, thus excited, does not depend on the action of these muscles, but on that of the stomach itself.

The diversity of opinion of these two physiologists induced the Society *de l'Ecole de Medecine de Paris* to nominate *M. Le Gallois* and *M. Beclard* to draw up a report on the Essay of M. Maingault. The experiments of this physiologist were repeated in the presence of these two gentlemen, who themselves again repeated them, varying the experiments, and making others altogether new, such as they conceived would conduce to illustrate the subject. To enable our Readers to judge for themselves, we shall lay before them a translation of this report.

SECTION 1. *Experiments relative to the Influence of the Diaphragm in Vomiting.*

"As various instances are recorded of the œsophagus having been ruptured during vomiting, we were induced to endeavour to ascertain in what circumstances this organ influenced the operation of vomiting.

"*Experiment* 1. Having made an incision in the neck of a dog, and the œsophagus being drawn through it, this organ was detached from the stomach at its cardiac orifice, and left suspended at the neck of the animal; by which we were enabled to observe its alternate contractions and dilatations. We then injected three grains of emetic tartar, dissolved in $\frac{1}{64}$ of a litre of water, into the crural vein. This was repeated in

five minutes afterwards. Five minutes after the second injection, the animal began to gape and make ineffectual efforts to vomit, so as to bring a quantity of froth from the mouth, and died in a few minutes afterwards. The stomach was full of alimentary pulp; some ounces of which had passed into the left cavity of the chest. The pneumo-gastric nerves were untouched. The lungs were collapsed, owing to the air having entered the thorax through the wound of the neck. The stomach had an opening of about one inch and a half in diameter at the cardia, and was held attached to the diaphragm by means of the peritoneum.

" *Experiment* 2. We repeated the last experiment upon another dog, but the œsophagus was not detached from the stomach, until it was drawn along with it towards the wound in the neck. The œsophagus was cut at its union with the stomach, but its movements were less evident than in the first instance. Having sewed up the wound in the neck, to prevent the air from entering the thorax, we injected three grains of tartar emetic into the crural vien. Seven minutes afterwards the injection was repeated, when respiration became much accelerated; and on again repeating it, some froth was discharged by the mouth. The injection having been repeated a fourth and fifth time, the animal made some efforts to vomit and expired. The stomach was empty, and lying in the left cavity of the thorax.

" *Experiment* 3. Having drawn the œsophagus through a wound in the left side of the neck, and cut it as low as it was possible, we injected three grains of tartar emetic into the jugular vein; the stomach remaining at the wound of the neck. We remarked, the spontaneous movements of the systole and diastole, which were rendered more apparent by the irritation excited by the injected matter. These movements gradually became more and more apparent. Ten minutes after the first injection, a second was effected; and almost immediately the animal was agitated and uttered a faint cry; the œsophagus was cold, but nevertheless it contracted very apparently, and with successive contractions from the upper to the lower part. Twelve minutes after the second injection, a third being thrown in, the animal uttered another plaintive cry. The movements of the œsophagus still continued, the contractions being propagated from the upper to the middle part. These motions now became frequent, regular, and synchronous with those of respiration; but soon afterwards they took place by jerks, and at each the œsophagus was strongly drawn upwards. During the four or five minutes which preceded the death of the animal, there were several very marked efforts to vomit, accompanied by a tense state of the œsophagus, which emitted air bubbles

by its lower extremity; but it always became relaxed during the intervals of these efforts. The parietes of the thorax and abdomen were equally tense during these efforts. The animal died three quarters of an hour after the first injection.

"The stomach was very large and full of pulp alimentary matter; about three ounces of which had passed into the posterior part of the thorax. The œsophagus was cut an inch above the cardia.

"In these three prefatory experiments, we had separated the œsophagus from the stomach. In the first and third case there was vomiting in the thorax; in the second, there was no vomiting; but the stomach was empty, and had been drawn into the thorax. In this latter case we observed, that the œsophagus displays contractions and dilatations independent of any efforts of vomiting; but these motions change their character in the action of vomiting. During all the efforts there was a flow of froth from the mouth. In each of the three cases, these efforts came on some minutes only before death; and several injections of tartar emetic were required to produce them; it appeared to us, that in general they were more protracted when the œsophagus was untouched.

"*Experiment* 4. Being desirous of observing the œsophagus *in situ* during vomiting, we made a very large opening into the left side of the chest, and injected six grains of tartar emetic into the vein; but the mediastinum not being able to resist the pressure of the air, the animal died in a few seconds.

"With the view of ascertaining what part the œsophagus performs in rejecting substances by the mouth, and the manner in which they pass from the stomach into the œsophagus, we made the two following experiments.

"*Experiments 5 and* 6. In the one, having opened the abdomen, we made an incision into the stomach by which we emptied it, and then introduced through it into the cardia and œsophagus, an elastic sound furnished at its lower extremity, with a box wood canula, upon which the cardiac orifice was tied to preserve the sound in its place. It came out at the mouth, but to prevent the animal from crushing it with his teeth, this extremity was brought out through the œsophagus, and an opening on the side of the neck. The sound thus situated excited vomiting; during each effort of which, water introduced into the stomach was thrown up through the instrument. Tartar emetic was then injected into the jugular vein; but notwithstanding fresh efforts to vomit were made, yet nothing passed through the sound; a circumstance however, as we discovered after the animal died, which depended on the canula being gorged with some solid matters that had remained in the stomach.

"Although in this experiment we observed, that each effort to vomit produced an expulsion of a certain quantity of liquid through the end of the sound, yet it was still undetermined, whether, in ordinary cases, this ejection is preceded by many preparatory efforts, so as gradually to overcome the resistance of the cardia; and to pass the matters contained in the stomach successively into the œsophagus. To ascertain this point, we performed the operation of œsophagotomy on another dog, and introduced a large sound, which would remain open at the lower end, and passed it down no further than the diaphragm*. A fourth part of a litre of water being slowly injected through the sound, no particular movement was excited; but having injected some tartar emetic into the vein, vomiting was produced, and at each effort the water was thrown up by jerks through the upper end of the sound; and this could be renewed for a considerable length of time. From these experiments we may infer, that in common the first efforts of vomiting, which bring off nothing by the mouth, merely make the substances pass from the stomach into the œsophagus, the particular action of this canal finally ejecting them; but that the first effect may take place without the participation of the œsophagus."

Section 2. *Experiments regarding the Influence of the Diaphragm in Vomiting, and that of the Diaphragmatic Nerves upon the Contractions of the Diaphragm.*

In the experiments which we witnessed, and those which we made, the diaphragmatic nerves have been seldom completely cut: and the diaphragm was more or less flaccid on one side or on both sides, according as one or both of the nerves were more or less perfectly cut.

In all the instances in which these nerves were cut, we have seen the anterior parietes of the abdomen become prominent during the expirations, and flattened during the inspirations, which is the reverse of what commonly occurs. When an opening was made into the abdomen, the air rushed with a noise into that cavity during the inspirations; and when the abdomen was altogether opened, the diaphragm was very much raised within the sides of the thorax. This elevation was still increased during the inspirations, an effect, which placed the epigastric organs much deeper than natural, particularly the stomach, and consequently subjected it to a greater degree of compression. We have seen vomiting occur in some cases, in

* That it passed no farther, was ascertained at the death of the animal.

which the diaphragmatic nerves were cut; but then, liquids only which were injected by the duodenum or the œsophagus were thrown up, except a small portion of solid matter which was occasionally dragged along with them, after very remarkable movements of the hypochondres. We have seen a dog die in a case of this kind, when the diaphragmatic nerves were completely cut, during strong and powerful efforts to vomit; which were excited both by the strangulation of the intestine, and the injection of tartar emetic. The stomach into which milk had been injected, contained a mass of coagulum.

The phenomena presented by the diaphragm after the section of its nerves in the neck, appearing to us to depend on paralysis, we made some direct experiments to ascertain the influence of the phrenic nerves on the diaphragm, or rather we repeated that one which has been frequently made, and from which it has always been concluded that the section of the phrenic nerves produces complete paralysis of the diaphragm. This experiment consisted in opening the chest of a young animal in such a manner that the pectoral surface of the diaphragm was clearly perceived, the life of the animal being supported by insufflation. We took a rabbit a month old, and raised the sternum and part of each of the sides; after which we kept the lungs inflated by means of a syringe adapted to the purpose, and the tube of which was introduced into the trachea. As long as the insufflation was continued the animal made no respiratory motion, and the diaphragm, with the other muscles of respiration, remained in perfect rest: but in a few seconds after any suspension of the operation, the animal feeling the necessity of respiring, made an effort to effect it, elevating its side and depressing the diaphragm with force. Having satisfied ourselves of the constant recurrence of these movements, whenever the insufflation was suspended, we cut one of the diaphragmatic nerves; on which the diaphragm instantly became immoveable on that side, and continued to fall from the opposite side. The other nerve being then cut, this side also became flaccid, and altogether immoveable; or rather any movement it experienced was passive and depending on the action of the anterior parietes of the abdomen. This experiment, frequently repeated, always afforded the same results.

SECTION 3. *Experiments relative to the Influence of the Parietes of the Abdomen in Vomiting.*

In all the experiments which we have either witnessed or performed, we have observed, that during vomiting, when the anterior part of the abdomen has been opened, the stomach was compressed by its sides; but, when the stomach was

placed beyond the action of these parts, although vomiting has taken place, yet it was of fluid matters only, and after these had been injected in such abundance as to distend the stomach to a considerable degree. We have also seen, in one case, when the diaphragm was paralysed, and the stomach consequently sunk under its sides, the muscles of the abdomen being divided, and the skin again sewed up, that the animal died after considerable efforts to vomit, and the stomach was found filled with coagulated milk.

"In one experiment, we opened the abdomen of a young dog, and found in his stomach a mass of chyme, produced from bread which had been eaten three hours before: the diaphragm preserved its action. We then excited vomiting by injecting tartar emetic into a vein, the stomach having been previously disengaged from the hypochondrium, and placed beyond the action of its sides. Very considerable efforts to vomit took place; at first the diaphragm contracted, with a constriction of its inferior sides, during the repetition of which air was thrown into the stomach; the motion and flexion of the neck also took place with the sudden constriction of the parietes of the thorax, and the opening of the mouth; but nothing was thrown up by the repeated renewal of these efforts. In this instance, the action of the œsophagus and that of the diaphragm were insufficient to produce the ejection of the pulpous matter; and, as in the preceding cases, the action of the œsophagus, and the muscles which move the sides, were equally inadequate to this effect.

"We have seen vomiting take place after the section of the anterior attachment of the diaphragm; but in order to prevent asphyxia, it was necessary immediately to stitch this part, or at least the skin of the abdomen; and besides the œsophagic ring of the diaphragm, and the œsophagus itself, remained entire. The substances vomited also were liquids, introduced in great quantity into the stomach, and now and then only some solid matter dragged out along with them.

"Finally, we have seen vomiting take place when the diaphragm was completely paralysed, either by the section of its nerves, or by some other circumstance; and we have also seen it when the abdomen was largely opened, and even during the existence of both these states. But in both cases the substances ejected were always more or less in a liquid form. In former researches relative to the powers which concur in producing vomiting, perhaps too little attention has been given to the consistence of the ejected substances; and the difference of the intensity of action which is requisite from each of the powers of which we have spoken.

"We consider, that those cases in which neither the diaphragm nor the abdominal muscles could contribute any thing

to the production of the vomiting, particularly support the opinion which we have hazarded as to the part which the œsophagus performs in this operation. Indeed, it is only after long reiterated efforts, accompanied with the constriction of the sides towards the stomach, that substances are suddenly and forcibly ejected by a final effort, which appears to differ from the others; or at least the constriction of the sides is less necessary for effecting it. We are of opinion, that all the prior efforts are intended merely to bring the substances from the stomach into the œsophagus, where they gradually accumulate, and that the sudden contraction of the œsophagus to free itself of them, constitutes this final effort. Perhaps it is owing to these circumstances that, after nausea more or less severe and long continued, fluid matters, bilious or otherwise, are suddenly thrown up without any manifest contraction of the abdomen. Perhaps also this function of this œsophagus prevents vomiting from taking place when this canal is contracted, and does not allow of the accumulation of substances in it: and the existence of such a function appears to be confirmed by the fact, that when the stomach is cut out, mucous and frothy matters are vomited, which, consequently, can come only from the œsophagus.

Section 4. *Experiments relative to the Action of the Stomach in Vomiting.*

"We have seen that during vomiting, and the efforts which precede it, the stomach is variously affected. 1st. There is a general tension during the efforts, which appears to depend on the pressure the stomach sustains. After the efforts, and in the interval of very evident efforts in the action of the diaphragm and sides, the tension of the stomach ceases. This tension does not take place when the pressure is taken off; which may be effected by holding the animal extended on its back, and disengaging the stomach from the hypochondrium. It is requisite, however, that the diaphragm be not paralysed, and the stomach not very voluminous; in which case the movements of the diaphragm and the lower sides are very well seen, and the stomach remaining at rest amid these efforts, except that it is drawn by the œsophagus. Nevertheless, as the stomach empties itself, it re-acts so as to compress all the matters it may contain. But this constriction does not take place by apparent contractions, such as are observed in the bladder and uterus, but by a gradual and insensible contraction which produces wrinkles within the viscus, larger in proportion to its degree of emptiness.

"2nd. The only movements peculiar to the stomach itself, are some successive partial circular contractions which it suffers

at the pylorus, and to about two inches from that orifice. These contractions may repeatedly take place, in the same manner, for a great number of times, but they do not even coincide with the vomiting. A similar contraction is sometimes observed to take place at the middle portion of the stomach.

"The following experiments were made upon this subject.

"We cut out the stomach of a dog, and supplied its place by a bladder attached to a tube of box wood, to another part of which we tied the gastric orifice of the stomach. The abdomen was left open, and tartar emetic repeatedly injected into the crural vein: several efforts at vomiting took place; during which the artificial stomach was agitated, and became tense, in the same manner as would have been the case with the stomach itself; but no vomiting succeeded, and the animal died after twelve grains of the tartar emetic had been injected.

"In another experiment, we employed an artificial stomach of the same kind; after filling it with coloured water, and having left the abdomen open, injected tartar emetic into the crural vein. The animal being extended upon its back made many ineffectual efforts to vomit; then being left to itself, it lay sometimes upon the belly, sometimes in a curved posture upon the side, vomiting frequently and abundantly the fluid contained in the artificial stomach. In this experiment, it is evident that during the first part of the vomiting, the passage of the water from the stomach into the œsophagus took place without the participation of the stomach.

"During these experiments, and many others of a similar nature, the animals passed urine and feces when the abdomen was open, and the bladder and intestines were absolutely free from any pressure. We have also seen in female animals, in whom the uterus was thin and membranous, the young brought forth while the abdomen was open; but we have never seen vomiting occur unless the stomach was in some measure influenced by the action of the diaphragm, or the parietes of the abdomen.

"It appears to us that we may conclude, from the facts we have related, that there are two distinct stages in vomiting; in the one the substances pass from the stomach into the œsophagus; in the other these substances are ejected by the œsophagus.

"That there is no manifest contraction of the stomach to which the first stage can be attributed, for the partial contractions of the fibrillæ which have been noticed, besides that they are not synchronous with the efforts of vomiting, are not adequate to this effect: and they can serve at most to produce the contraction of the stomach which occurs after vomiting, and the degree of which is in a direct ratio to its emptiness.

"That the stomach always requires the aid of external compressing powers to produce this first stage; but the number and intensity of these must vary considerably, in particular according to the consistence of the matters to be vomited. It cannot however be generally asserted that the contraction of the diaphragm, or that of the abdominal musles, are absolutely necessary in every instance for producing the action of vomiting, since the simple approach of the sides towards the epigastric region is sufficient to produce it, when the matters contained in the stomach are fluid or not very consistent.

"That the second stage, or the ejectment of the matters by the œsophagus, takes place without the aid of any external compression.

"That independent of this action of the œsophagus, that canal may concur, to a certain extent, in producing the first stage of vomiting. It concurs in as much as it is fitted to receive the matters vomited, and by the impression which the jerks, proceeding from its longitudinal contractions, make on the stomach. Perhaps to this action of the œsophagus in vomiting, may be attributed the slowness with which the efforts at vomiting succeed each other, and in general the feebleness of these efforts, when the œsophagus is separated from the stomach.

"That the movements of the diaphragm depend on the phrenic nerves; and that this organ is suddenly and completely paralysed when these are divided; but as it is difficult to divide them at the neck, it is necessary, in repeating our experiments, or making others in which they should be divided, to ascertain, afterwards, by a careful dissection, whether the division had been complete.

"Here the task which has been imposed upon us may be considered as terminated; for after what we have stated in the commencement of this Report, it is not requisite for us to compare the results we have obtained, with those laid before the Society by *M. Maingault*."

II.—In one of our early numbers* we noticed some discoveries which M. Galés supposed he had made, relative to the *Acarus scabiei*. Several continental practitioners have since endeavoured to obtain a sight of this insect; and, among others, Dr. Suriray of Havre, who, from his want of success, begins to doubt of its existence at least in the pustules of scabies; and in a letter to *Dr. Marc* of Paris, published in the *Journal de Medicine* of August 1813, advances the following objections to the observations of *M. Galés*.

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* See *Repository*, vol. i. p. 214.

"*1st Objection.* Admitting that excellent observers have seen an insect in the pustules of scabies, it must also be admitted, that this insect is not always to be found in the pustules of scabies; and therefore it may be concluded that the disease can exist without any living animalcules contributing to its production: a practical fact which influenced Murray and Larry in drawing up the etiology of the disease, although they acknowledged the existence of the *acarus scabiei.*

"*2nd Objection.* Since the indefinite extension of itch, if left to itself, must be owing to the increased multiplication of the insect, how does it happen that *M. Galés* has not found it in every pustule, or has met with a very few only upon the same patient? The multiplication of the insect ought certainly to keep pace with the extension of the cutaneous affection, and the degree of itching.

"*3d Objection.* From the figures given by many naturalists, and the observations of Dr. Galés himself, it appears that the itch insect very closely resembles the meal mite: How then is it possible to conceive, that an insect of an oval form, a soft consistence, and having no visible organs for piercing the skin, should be able to introduce itself under it? Do not the rigid hairs also, with which its abdomen is covered, present another obstacle to such an effect?

"*M. Galés* has informed us that the insect frees itself from the pustule soon after it has produced it. But, then, may it not be demanded, what produces the subsequent itching in this same pustule, and how does it continue always filled with a fluid more or less serous, when an exit is given to it, at the moment, at least, of the insect leaving the pustule?"

Dr. Suriray concludes that the sources of the insects that have been found in itchy patients, are the cloaths and other exterior matters; and agrees with Murray, whose opinion he quotes. "*Antequam exanthemata in cute erumpant, corruptela quædam hic merum vel labes solidorum, saltem in superficies corporis, semper præcedat; quæ, si ad certum terminum pervenit, acaros in caseo, sive in farina latentes (nam ejusdem speciei sunt) allicit ut in cute nidum quærant.*"

CHEMISTRY.

III.—In the *Annales de Chimie* for August 1813, we find an account of some experiments by M. Vogel, on the blood and the bile; with a translation of which, as we conceive every thing connected with animal chemistry of importance, we shall present our readers. This paper is intitled, "*Sur l'Existence du soufre dans la Bile et dans le Sang.*"

"The analysis of the bile has engaged the attention of many chemists; whose labours, particularly those of *Thenard*

and *Berzelius*, have thrown considerable light upon the nature of this substance.

"The existence of albumen in the bile of quadrupeds, is asserted by some chemists and denied by others. M. Thenard supports the latter of these opinions, as far as the bile of the ox is concerned, whilst he has found albumen in human bile, and that of birds*.

"M. Cadet, of the Academy, on the contrary, asserts, that there is in ox bile a great quantity of albumen, and he besides supposes it contains some sulphur; for he expressly says, that sulphuretted hydrogen gas is disengaged when muriatic acid is dropped into the fresh bile; and Fourcroy relates, that the inspissated bile distilled in a retort, emits a little sulphuretted hydrogen gas.

"Instead of albumen, M. Berzelius has obtained mucus from the bile; we, in France, however, are not yet acquainted with all the details of this analysis, an extract only of which has been given to the public in the Annales de Chimie. (Tom lxxxiii. p. 243.)

"I have thought, that if bile really contains albumen, sulphur also should be found in it, for this combustible body generally accompanies that substance. To bring my opinion to the test of experiment, I introduced two kilogrammes of fresh ox bile into a capacious glass retort; and introduced some slips of white paper, which had been soaked in a solution of acetate of lead into the neck of the retort. Having united to the retort a tubulated receiver, furnished with a curved tube, the open extremity of which was plunged into a jar filled with a solution of acetate of lead, I boiled the bile.

"When the boiling had been continued for some minutes, the paper, in the neck of the retort, became sensibly black, and covered with a coating somewhat metallic and resembling Galena in brilliancy. In the jar, containing the solution of acetate of lead, some carbonat of lead was first formed, and afterwards a little sulphuret of lead was deposited†.

"Blood also contains sulphur in the state of hyrosulphuret of ammonia, according to Proust. Of this fact the proof is more easily obtained, and without submitting the fluid to distillation; it is only necessary to cover a vessel containing blood with paper soaked in acetate of lead, and expose it to a tempe-

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* See *Memoires d'Arcueil*, tom. i. p. 70.

† The disengagement of carbonic acid must be attributed to the decomposition of the bile, or rather of the carbonate of soda which it contains, according to M. Thenard.

rature of from 25° to 30° of the centigrade thermometer (77° to 86° Fahrenheit). In a few days the paper becomes black, and sulphuret of lead is formed.

"Sulphur may be also demonstrated by this simple experiment in bile and urine.

"It is thus made evident that the bile, the blood, and urine contain sulphur, probably, in the state of sulphuretted hydrogen, if this gas is always produced from them by the assistance of heat, or rather by putrefaction. It is probable that sulphur exists in all the animal humours I have not however been able to demontrate it in cow's milk with the same facility; at least I have not been able to detect its presence in operating upon some litres of this fluid.

IV.—In the Journal de Chimie de Schweigger*, *M. Hildebrandt* has inserted the following notices relative to the preservation of meat, dead animal muscle, in the gazes.

"Into a receiver, the capacity of which was three cubic inches, filled with pure sulphurous acid gas, a small piece of fresh beef was introduced through mercury; in a few minutes the meat had absorbed almost all the gas, and the mercury filled the receiver, except what was occupied by a few bubbles which were probably atmospheric air. The meat soon lost its natural red colour, and acquired that of boiled meat: but it suffered no other apparent alteration, and the air in the receiver preserved its bulk. At the end of seventy-six days, during which the temperature had varied from 0 to 10: *Reaum.* (32° to 54. 55 *Faht.)* the meat had scarcely acquired any odour of sulphurous acid: but it was harder and dryer than boiled meat. After having been four days exposed to the open air, it became still more compact without putrefying; the colour was not sensibly changed, and it only lost the faint smell of the acid, without acquiring any other odour.

"*Fluoric Acid Gas.* A piece of fresh beef was treated in the same manner, with fluoric acid gas; the results were the same, but less evident, owing to the acid attacking the glass. It was also deposited, with some mercury in form of a thin pelicle upon the meat.

"*Ammoniacal Gas.* Some beef inclosed in a receiver filled with this gas underwent very different alterations: the elastic fluid was completely absorbed; and the meat acquired a beautiful red colour, similar to that which nitrous gas would produce, which it preserved for seventy-six days. It was much softer than in the preceding experiments, inodorous, and re-

* Tom. i. p. 358.—We have not seen the original; but have extracted our article from the Annales de Chimie, Dec. 1813.

tained the colour and consistence of fresh meat. It did not putrefy when exposed during four days to the open air; but it, nevertheless, lost its red colour, became brown, dry, and covered with a kind of varnish.

BOTANY.

V.—Dr. Mich. Felix Dunal,* of Montpellier, has published an interesting work, intitled *Histoire Naturelle, Médicale, et Economique des Solanum, et des Genres qui ont été confondus avec eux.* Besides pointing out the real character of the genus, the work contains some curious information on the medicinal properties of the various species, and their effects on the animal economy. He rubbed the juice of the *Solanum nigrum, villosum, nodiflorum* and *miniatum*, upon the eyes, and found that a dilatation of the pupil was thereby produced; and although it was not, certainly, to the extent occasioned by the belladonna, yet the effect, such as it was, continued from two to five hours. He ascertained, also, that the berries of many of the species of Solanum, which are generally regarded as poisonous, are perfectly innocuous. He gave to various animals the berries of the *Solanum nigrum, villosum, pseudo-capsicum*, and *dulcamara*, both in an unripe and mature state, without any sensible effect being produced; and he himself ate frequently a great quantity of the berries of the garden-nightshade, a variety of *S. nigrum*, without experiencing any inconvenience; but the fruit of the greater part of the Solanum genus, which have an affinity with the species *S. melongena*, appeared to him to be poisonous. He poisoned a dog with the pulp and seeds of five berries of the *Solanum fuscatum*, which has the seeds involved in a very acrid parenchyma, like many others of the genus.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

Royal College *of* Surgeons, London.—Jacksonian Prize.

The Prize Subject for the year 1815, for the premium of £10 to the author of the best Dissertation on a practical *Subject* in *Surgery*, is Diseases in Bone. Candidates must be Members of the College; not on the Court of Assistants. The Dissertation must be in English; and the number and importance of facts will be considered the chief points of excellence in the composition.

Every Dissertation must be distinguished by a motto or device. Every Dissertation must be accompanied by a paper, sealed up, containing the name and residence of the Author; and having on the outside a motto or device corresponding with the motto or device on the Dissertation. Not any dissertation, motto, or device, must be in the hand-writing of the author; nor must the sealed paper, containing his name and residence, have the impression of his seal. Dissertations must be addressed to the Secretary, and delivered at the College, upon Christmas Day, 1815. The adjudication will be in the month of April, 1816. The Prize Dissertation will be preserved in the Library of the College. The unapproved Dissertations, with their correspondent papers unopened, will be returned upon authenticated applications. Every unapproved Dissertation which shall remain three years unclaimed, and its correspondent paper unopened, will be burnt in the presence of the Jacksonian Committee. The Prize Subject for the present year, 1814, is INJURIES and DISEASES of MUSCLE; Dissertations upon which must be delivered before Christmas-day next.

NOTICE is given, "That from and after Friday, the 5th of August next, Courts of Examiners of the College of Surgeons will be holden on the first Friday only in every month."

Committee Room, Crown and Anchor, July 6, 1814.

RESOLVED, That the following communication shall be published and addressed to the CHAIRMAN or SECRETARY of every District Committee:

"This Committee understand that the SOCIETY of APOTHECARIES have resolved to postpone their application to Parliament until the next Session; and that this determination is in consequence of several communications between the COLLEGE of PHYSICIANS and that Society, proposing certain further alterations in the Bill; many of which will require more time for mature consideration than the advanced period of the present Session will allow.

"Feeling confident that this delay will have a beneficial rather than an injurious effect upon the measure, by affording sufficient leisure to perfect its various provisions, and by this means producing a Bill as advantageous to the Profession as to the Public at large, this Committee acquiesce in the postponement of any further proceedings as to the introduction of the Bill in the present Session." G. M. BURROWS, CHAIRMAN.

ROYAL SOCIETY. On the 24th of May a paper by Sir Everard Home was read, on the effect of different injuries of the brain on sensation. The attempts to determine the functions of the different parts of the brain not having been attended with success, Sir Everard conceives that it would promote the advancement of physiology if medical men were to collect together, and arrange the effects produced by different diseases or injuries of the brain. The pre-

sent paper contains the result of his own practice. It is divided into ten sections. 1. On the effect of water accumulated in the ventricles. Water accumulated in the ventricles, even to the amount of 6½ ale pints, does not destroy the faculties, provided the bones of the cranium be not united, and the head enlarge according to the accumulation. A curious case was related of a young man whose head had increased enormously, and who retained his faculties entire, except some inconveniences from the size and weight of the head. He was in his nineteenth year, and the head was thirty-three inches in circumference. When the bones of the cranium, being united, prevent the head from enlarging, the accumulation of water in the ventricles destroys the faculties, and produces idiotism and death.—2. On the effects of concussion. It occasions nausea and vomiting, giddiness, and apoplectic fits, which return at intervals for some time.—3. On the enlargement of the blood-vessels of the brain. It occasions violent headaches, watchfulness, and disorders of the bowels. The beating of the arteries of the brain has been supposed essential to the exertion of the senses; but John Hunter retained his senses after the heart had apparently ceased to beat.—4. On the extravasation of blood. It produces similar effects as the accumulation of water; coma, nausea, apoplexy.—5. On the effects of the formation of pus. It occasions melancholy, lowness of spirits, and mania, with incessant talking.—6. On the effects of external pressure. The depression of the scull occasions loss of memory, the incapacity of using the proper conversation, &c. all which disappear when the cause is removed.—7. Internal pressure from tubercles produces similar effects.—8. Hydatids in the brain occasion bowel complaints; and a comatose state of the rectum and bladder.—9. Wounds in the brain occasion no symptom whatever, nor the destruction of any of the faculties. When a fungous excrescence of the brain takes place through a hole in the scull, the œsophagus becomes so sensible as to prevent swallowing solids, from the pain which they occasion.—10. Injuries of the spinal marrow in the neck occasion paralysis of all the parts of the body below the injury.

On the 9th and 16th of June a paper by Sir Humphry Davy was read, containing additional observations on iodine. The first part consisted of additional observations on the triple compounds, formed by dissolving iodine in solutions of alkalies and alkaline earths. The second part contained experiments on iodine with hydrionic acid. In the third part Sir Humphry Davy gave an account of his experiments with iodine and chlorine.

At the same meeting a paper by Dr. Kidd, Professor of Chemistry at Oxford, on the formation of nitre on walls, was read. This salt appears spontaneously on the walls of the Laboratory at Oxford, and Dr. Kidd relates the result of his observations on its appearance, continued for about a year. The wall is composed of limestone, containing [illegible] cent. of carbonate lime, and four

per cent. of oxide of iron, clay, sand, and a trace of magnesia. The nitre only appears on this limestone. Frost increased the rapidity of the formation; but an intense cold seemed to put a stop to the process. Moisture seemed injurious to the process. The free access of air was requisite for the formation of the salt in the usual quantity; though a portion was formed on a part of the wall separated from the external air by means of a glass-case; but after a certain time this formation ceased. Pure carbonate of lime spread on the glass-case did not yield any saline efflorescence. The saltpetre was nearly pure. It did not contain above half per cent. of lime, and gave very minute traces of sulphuric and muriatic acids.

On the 24th of June, in a paper by Sir H. Davy, was given an account of the combustion of diamonds in oxygen gas. The experiments were made at Florence.

At the same meeting a paper by Sir Everard Home, Bart. was read, giving an account of the skeleton of a fossil animal related to the class of fishes, lately discovered on the south coast of England. This specimen is in Mr. Bullock's Museum. It was discovered in a limestone rock, situated on the west of Lyme. The scull was found in 1812, and the other parts some months after. The author shows that it must have been a swimming animal, from the articulations of the vertebræ. But it differs in its structure from all known genera of fishes, and the author conceives that it is related to some of those intermediate animals found upon the coast of New South Wales.

Linnæan Society. On Tuesday, the 7th of June, a paper was read on the long sea-worm, the Gordius Maximus of Montague, by the Rev. Hugh Davies.

At the same meeting there was read a description of a fossil alcyonium from the chalk strata near Lewes, by Gideon Mantell, Esq.

On Tuesday, June 21st, a description of the cajeput oil tree, by Dr. Roxburgh, was read. In 1797 it was brought from the Maldives to the Botanic Garden at Calcutta, where it throve very well, multiplied considerably, and produced blossoms and perfect fruit. It was from these trees, about thirteen years of age, that Dr. Roxburgh's description was taken. The stem was slender, considering the height of the young tree, which was about 20 feet; the bark smooth and peeling off like that of the birch; the twigs pendulous like those of the weeping willow; the leaves lanceolate and smooth. They yield an aromatic oil. He considers it as a new species, to which he gives the name of melaleuca cajeputi.

At the same meeting a paper by Dr. Leach was read, on the class of insects called myriapoda; in which the animals composing it were distributed into two orders; viz.

1. *Chilognatha.* Maxillæ, none; palpi, indistinct; labrum, simple.

2. *Syngnatha.* Maxillæ, two, distinct, connected at their base; palpi, four; maxillary ones filiform, simple; labial ones terminated by a little hook.

These orders were considered as constituting distinct classes by Fabricius; but as they agree in anatomical structure, they cannot be viewed in that light. Latreille placed them with the *Arachnides*, on which class a memoir by the same gentleman was read, in which the following arrangement was proposed.

Subclass 1. *Octopoda*, feet eight. This division contains the following orders, the character being founded on the structure and divisions of the body; viz.—1. *Podosoma*. 2. *Polymerosoma*. 3. *Duomerosoma*. 4. *Monomerosoma*.

Subclass 2. *Hexapoda*, feet six. This subclass consists of two orders, which are formed from the situation of the mouth; viz. 1. *Cephalostoma*; 2. *Notostoma*, which latter order contains the genus *Nyncteribia* of Latreille, *Ptheridium* of Hermann.

In the paper on the Arachnides, he related a curious observation by Sir Joseph Banks. This gentleman observed one day a spider running across the table with a fly in its mouth; surprised at this sight, he caught it, and found it a common web-spinning spider; but having only three feet instead of eight, the loss of its limbs had prevented it from spinning its web, and obliged it to alter its economy. After keeping it some time, the five legs began to sprout out; but they only attained half the length of the old ones, and were not therefore of much use. But they enabled it to spin a web, on which it usually sat. Every time the animal cast its skin, the feet became longer.

The Society adjourned till the first of November.

Fœtus found in the abdomen of a Youth sixteen years of age.—The attention of the faculty, and the wonder of the public at large, has been much excited by the following unusual though not unique case. A young man of Sherborne, in Dorsetshire, died at that place a few weeks since, at the age of sixteen, with symptoms of disease in the abdominal cavity, of an uncommon if not extraordinary nature. For fifteen years of his life he had been healthy; but about the beginning of his sixteenth year, after, as it appears, making some exertion beyond his powers in the way of his employment, labouring, we believe, in agriculture, he became ill; the abdomen was enlarged, he suffered pain, and after some time a tumour was detected, which was deemed to be enlarged spleen. Upon his death, leave was obtained to examine the body. The tumour, which had been felt during life, was found to consist of a cyst, attached to, or being an enlarged portion of, the duodenum. Within this cyst was found a substance weighing between four and five pounds. This substance was obviously a fœtus, wanting a head, and one inferior extremity. From the neck, upon which a head had been fixed, if it ever existed, and from which, if it once existed, it had been absorbed, grew a large quantity of hair, and much of it fourteen inches long. There were two tolerably well formed, and not unjustly proportioned superior extremities. The trunk, though its general contour had in a degree suffered apparently by compression, was not very ill formed. It was of the female sex; the generative organs being

distinctly evolved. This fœtus lay in the cavity of the duodenum, in an enlarged portion of that intestine, which was considerably thickened, and a part of it was of a substance more dense than the other, and resembling in its office, but not as it appeared to us in its texture, a placenta. In a centre of this placental substance was fixed a short funis, (between two and three inches long,) which was inserted in the umbilicus of the fœtus. The cyst in which this monstrous fœtus lay, seemed enlarged duodenum, and the intestine opened into and passed out from it; the progress of the feces being near the nates of the contained fœtus. The preparation of this monstrosity is deposited in the Museum of the Royal College of Surgeons in London. We forbear to enter further into the facts respecting this phenomenon, because Mr. Highmore, the medical gentleman who attended the youth, is about to publish a full account of all the circumstances accompanied with plates. See the advertisement on the cover of the *Repository*.

Mr. Samuel James, Surgeon of Hoddesdon, Herts, well known as the Author of "Observations on the Willow Bark," and for his ingenious invention of a Machine for Fractures of the Legs and Thighs, which appeared in the Encyclopædia Britannica seventeen years ago, has again exerted his mechanical talents for the advantage of the Profession, and the Public. Mr. J. has now invented a Sofa, for which he has received a patent, of the great utility of which, from the view and description the annexed plate conveys, no doubt can be entertained. It combines the ease of a bed, with a mechanical substitute for locomotion. Among the many decided marks of approbation of his Patent Sofa, Mr. James has received the unequivocal testimony of Dr. Saunders and Dr. Babington; and of Mr. Cline and Mr. Astley Cooper.—This Sofa may be seen at Prentice and Son's, Little Wild Street, Lincoln's-Inn-Fields; or at Jenks and Son's, 81, Fleet Street.

Method of Preserving Vaccine Lymph.—This method is related by Dr. Reid Clanny, of Sunderland, in a letter to Dr. Thomas Thomson. It is stated to be the invention of a Mr. Forman, an ingenious glass-manufacturer upon the Wear, near Sunderland. It is in the form of a small glass ball with a tube issuing from it, very similar to a cracker, as it is called, which mischievous boys put into candles to cause an explosion. The pustule from which the virus is to be taken being punctured by a lancet in the usual manner, the small ball or bulb is to be heated at a candle so as to rarify the air within it, and after it is sufficiently warmed, the end of the little tube is to be inserted where the lancet had made the puncture, and the virus will immediately be taken up, so as to fill the bulb. The end of the tube is now to be hermetically sealed by means of a common blow-pipe at the flame of the candle, which is a very simple process; and thus the virus may be preserved for any length of time, and sent to any distance. If for immediate use, the tube need not be sealed, but may be secured in any convenient manner. Any requisite number of these balls may be employed, and it is proper to remark that the virus is never heated much above blood heat.

CATH. TAYLOR, aged 27, wife of W. Taylor, Vine Street, Newcastle, died lately from the bite of a mad dog, received about six weeks before; and during the influence of the hydrophobia, she was delivered of a child apparently in good health.—*We shall feel greatly indebted to any Medical Gentleman of Newcastle, who will oblige us by communicating the particulars of this case.*—EDITORS.

A WORK on the subject of Definite Proportions in Chemistry, has recently appeared at Paris, under the title of *Description of Atoms*, in an 8vo. volume.

IN the Press, and will appear at the latter end of this month, Facts and Observations on the Nature and Treatment of Liver Complaints and Bilious Affections in general. By JOHN FAITHORN, formerly Surgeon in the Hon. East India Company's Service.

A METEOROLOGICAL TABLE,

From June the 21st, to July the 20th, 1814,

Kept at *Derby,* Lat. 52°: 58′ N.—Lon. 1°: 30′ W.

M	D	Therm. Morn.	Therm. Day.	Barom.	Hyg.	Wind.	Rain.	Remarks, &c.
	21	48	60	29 .80	388	N by W	.30	Dull
	22	49	53	.93	338	N		Dull, Dew
	23	48	57	30 .09	346	N		Dull
	24	44	60	.20	365	N by E		Dull
	25	51	66	.17	410	NNE		Clouds
S	26	50	56	.00	366	NE by N	.07	Dull, Shower
	27	50	60	.00	313	NNW		Dull, Dew
	28	49	71	29 .91	376	NW		Sultry
	29	51	72	.85	384	W		Sultry
	30	50	67	.89	450	W		Fine
	1	52	64	.85	421	NNW		Cloudy, Fine
	2	44	67	.94	481	W		Clear, Clouds
S	3	46	72	.95	446	WNW		Clear, Clouds
	4	52	65	.95	390	W		Clouds
	5	53	73	.95	375	W	.09	Rainy, Fine
	6	50	76	.90	460	WSW		Fine
	7	57	69	.76	485	WSW	.05	Dull, Light Rain
	8	54	65	.70	336	S by W	.09	Light Rain
	9	55	67	.68	345	S by W		Clouds, Dull
S	10	54	60	.70	379	SSW	.40	Rainy
	11	48	68	.85	359	WSW	.03	Showery
	12	49	69	30 .02	398	WNW		Fine, Clouds
	13	53	62	29 .96	380	WNW		Dull
	14	50	58	.74	349	W	.02	Small Rain
	15	48	65	.70	372	NW		Dull
	16	53	64	.78	375	N		Dull
S	17	48	64	.85	373	S by E		Clouds
	18	47	68	.85	393	W		Fine
	19	48	69	.79	379	S		Dull
	20	57	71	.58	374	S		Rain, Clouds, Storm

Rain fallen in June, 1.98 inches.

*** THE gentleman who furnished the observations on the diseases of Derby, that accompanied this table, having removed thence, we should feel much indebted to any other practitioner who would add his notes to this monthly contribution of Mr. Stanwick.—EDITORS.

A METEOROLOGICAL JOURNAL,

From the 21st of June, to the 20th of July 1814,

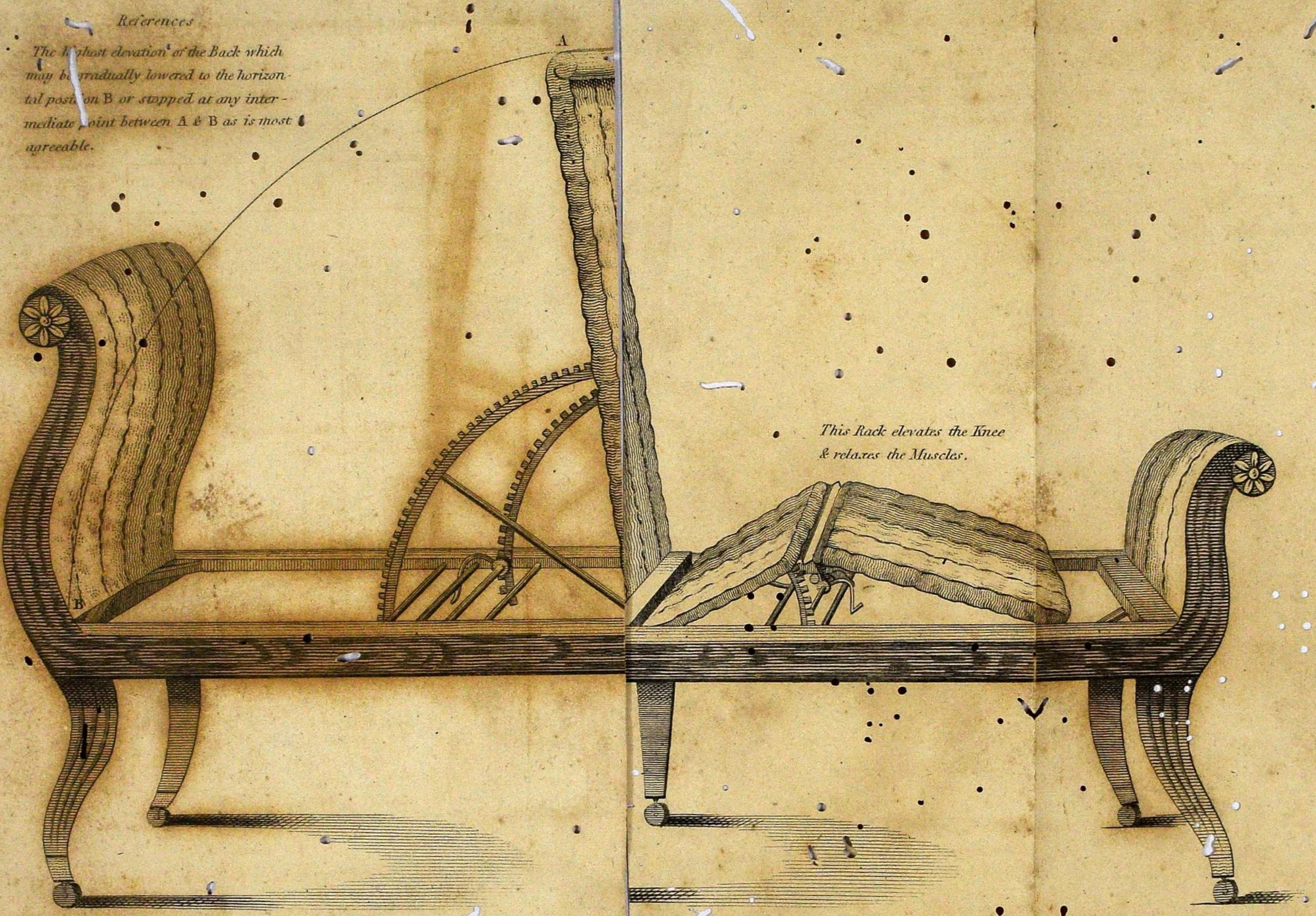
KEPT AT RICHMOND, YORKSHIRE,

NW from London.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gage.	Winds.	Weather.
21	29 65	29 59	66	46		NW..	1 S.. 4 Cy...
22	29 81	29 72	56	46		N..	1 2 4 Cy.. 3 S.
23	29 93	29 87	61	44		N..	1 Cy.. 2 S...
24	29 99	29 97	64	48		NE..	1 2 4 Cy.. 3 S..
25	29 94	29 83	67	48		N by E..	1 Cy.. 2 S..
26	29 77	29 74	55	47	.10	N..NW..	1 Cy.. 2 R..
27	29 69	29 65	71	45		NW.NE.SE.	1 Cy.. 2 S. 4 Moonsh....
28	29 61	29 57	78	55		SW.	1 3 S... 2Cy. 4 Moonsh...
29	29 59	29 57	76	45	.08	SW.	1 Cy. 3 R..
30	29 53	29 51	70	49		SW..	1 3 S... 2Cy. 4 Moonsh..
1	29 63	29 58	68	42		W..	1 Cy.. 2 S..
2	29 66	29 65	74	49		E.W..	1 S...
3	29 69	29 68	80	53		W..	1 S... 3 Cy..
4	29 63	29 61	73	55		W..	1 3 4 Cy.. 2 S.
5	29 65	29 60	78	58		W.SW..	1 3 4 Cy.. 2 S.
6	29 54	29 43	74	54		SW....	1 3 4 Cy.. 2 S.
7	29 46	29 35	68	49	.06	S..SW...W..	1 Cy.. 2 S.. Sh..
8	29 32	29 29	77	54		S.SW...W..	1 Cy.. 2 S...
9	29 39	29 38	73	53		SW..	1 S..
10	29 47	29 43	78	45	.03	SE..SW..	1 3 S.. 2 R. 4 St...
11	29 68	29 64	74	46		S..W..	1 S.. 2 S...
12	29 77	29 73	74	49		W..SW...	1 3 S... 2 Cy... 4 St..
13	29 55	29 44	71	47	.19	W by N..	1 S. 3 R.. 4 St.
14	29 39	29 39	67	50		WNW..NE..	1 4 Cy.. 2 3 S.
15	29 45	29 42	70	48		NW..NE.	1 Cy..
16	29 58	29 56	72	46		N.E..	1 4 Cy.. 2 3 S..
17	29 58	29 52	77	44		E.SW..	1 3 S.. 2 Cy.. 4 St...
18	29 53	29 50	74	54		SE.SW..	1 Cy... 2 S...
19	29 38	29 26	74	56		SW..S.	1 S. 3 Cy..
20	29 32	29 22	77	59	.03	S.SW..	1 Cy..2 S..Th.Storm 3S...

Observations on Diseases at Richmond.

THERE has been a great deficiency of rain during the months of May, June, and two-thirds of July. The general average of this place is about an inch and three quarters per month, whereas the quantity that has fallen the last three months, is not more than the average of one month. The prevailing disease, since last report, has been the Measles, which is rather more severe: two children have died of the Sequelæ, but both were very weakly; neither of them had been vaccinated, nor had had the Small Pox. Some cases of Jaundice have appeared, chiefly amongst children. Many febrile complaints have occurred, some attended with cough.



Sam.l James's Patent S. Machine for Invalids.

No. 8. Vol. II.

A REGISTER of the DISEASES of LONDON between June 20th and July 19th, 1814, for the London Medical, Surgical, and Pharmaceutical Repository.

DISEASES.	1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N.	7 N. W.	8 W.	9 Surry side W	10 Surry side E.	11 Hamp Highg	No. of Cases.	Fatal.
Anasarca	3	3		2	2	3	6	1	4			24	4
Ascites	1		1		2	3	1		2			10	3
Asthma	6	1	1	3	5	6	17		2		3	44	4
Acne	1		1				1	1	3			7	
Apoplexia	3	2	3		3				2	2		15	6
Aphtha	1			4	3	3			4	2	2	19	
Amenorrhœa	10	4	6	3	4	1	6	2	7	1	1	45	
Asthenia	13	16		7	20	4		1	9	4	4	78	1
Abortio	1	1		1	4	3		4	2	4	1	21	
Bronchitis acuta	4						1					5	1
—— chronica	2							1		1		4	1
Bronchocele								1				1	
Cancer					1							1	
—— Uterin.							1					1	1
Chlorosis	9	2			1		1		5		3	21	
Cholera	10	4	2	5	12	3		5	6		4	51	
Chorea	1								1	1		3	
Cephalalgia	15	7	1	3	10	6	12	1	7	3	2	67	
Colica		11	2	8	4		4	7	5	4	1	46	
—— Pictonum				1								1	
Catarrhus	31	7	6	16	24	4	21	31	6	7	10	163	2
Convulsio	1	3		1	2	4			2	4	2	19	2
Carditis	1									1		2	
Cynanche Tonsillaris	13	7	8	3	12	4	9	20	8	6	4	94	
—— maligna				1	2		2		1			6	
—— Trachealis		1				1	1					3	1
—— parotidea.		3		1					2		2	8	
Dysenteria	1	5	3	1	5		2	1	3			21	
Diarrhœa	19	17	7	7	18	5	15	13	12	11	7	131	
Dyspnœa	8	5	1	1	5	2		5	2		2	31	
Dyspepsia	12	11	4	17	15	7	25	15	20	8	12	146	
Dysuria	1	1		1	1	1	1	1		3		10	
Eczema	1	1					3			1		6	
Ecthyma		1			2		1		3			7	
—— syphilitica						1						1	
Erythema	1				1			1	2			5	
Erythismus mercur.					1							1	
Erysipelas	8	8	1	5	2	10	7	1	5	1		48	1
Enteritis	1	2	2	3			1	2	2	5		18	3
Entrodynia	1	12		2	1	2		2	7		4	31	
Epistaxis				1								1	
Epilepsia	2	1		2	1	2	4	1	1			14	1
Febris remittens	16	29	14	2	10	34	2	10	6	14	5	142	
—— intermittens	3	7		4	5	2	1		4	1		27	
—— puerpera				2	1		1			4		8	3
Gastritis				1			2			1		4	
Gastrodynia	14	11		6	1			3	7	8	4	54	
Gonorrhœa pura						1						1	
Hæmatemesis		1			1							2	
Hæmoptoe	4	3			2	4		2		1	1	17	1
Hæmorrhois	1	5	1	5	7	1		2	[illegible]	3	2	32	
Hepatitis	4		3	9	4		4	3	6	5		38	
—— chronica					1	1						2	
Hysteria	4	2	1	2	14	1	3	4	5	3	2	41	
Hysteritis			2									2	
Hydrophobia								1				1	1
Hydrocephalus	2						2		2	4		10	8
Hydrothorax					2	3			1	1	1	8	2
Hernia Humoralis						2						2	
Herpes	3	1		4	4	1	6	2	4	2	1	28	
Hypochondriasis	1	2	1		2	5	1	1	3			16	

DISEASES.	1 S. W.	2 S.	3 S. E.	4 E.	5 N. E.	6 N	7 N. W.	8 W.	9 Surry side W	10 Surry side E.	11 Hamp Highg	No. of Cases.	Fatal.
Icterus	2			2	1		2	3	2			12	
Impetigo	3	1			2							6	
Ichthyosis	1											1	
Ischuria		1		1	1	2			1			6	
Leucorrhœa	3	1		3	10	2	5	3	7			34	
Lithiasis										1		1	
Lepra			1	5	2							8	
Lichen				1		3		1	3			8	
Lumbago		2				1						3	
Mania		1		1	4		7	3			1	17	2
Menorrhagia	6	5		3	4		5	1	9	1	4	38	
Miliaria	3	1		1	1		1					7	
Morbi Infantiles*	21	14	10	6	9	16	31	40	16	58	6	224	7
—— Biliosi	29	2	31	7	10	32	16	22	12	40	4	205	
Nephritis				1					1			2	
Odontalgia	1					2						3	
Obstipatio	7	3	2	3	12	4	6	10	10	1	2	60	
Ophthalmia	10	7	5	6	13	6	12	4	4	7	9	83	
Phlogosis	4			1		2						7	
Paralysis	1	3		7	2		4	1	2		1	21	3
Phthisis Pulmonalis	7	3	1	3	3	4	6		1	4	1	33	12
Pertussis	1	5			4	2	7	2	3	3		27	
Peritonitis	1	1	1	5			2		4	1		15	1
Phlegmasia dolens										1		1	
Phrenitis		1			1			3	1			6	1
Pneumonia	2	18		10	14	4	8	6	4	2	3	71	5
Pleurodyne		1				1						2	
Podagra	3	7	1		4		4	4	1			24	
Porrigo larvalis		7				1				1		9	
—— scutulata	4				4	2			5			15	
—— favosa			2					2	3			7	
Psoriasis	8	2		1	1	4		9	4	3	1	33	
Pityriasis Capitis						1						1	
Purpura		1									1	2	
Pyrosis		2			1			2	2			7	
Rachitis							1		1	1		3	
Rheumatis. acut.	17	22	1	13	12	8	8	9	3	2		95	1
—— chron.	6	2	1	12	22	4	12	1	5	10	1	76	
Rubeola	5	20	1	4	15		30	29	5	4	15	128	1
Roseola Vaccina	1											1	
Scabies	5	6	1		9		48	1	7	7	2	86	
Sycosis Menti						1						1	
Scarlatina simplex	2		2	1	1	10	2	1	2			21	
—— anginosa		2								2		4	
—— maligna.						3						3	
Splenitis					1	1						2	1
Scrofula	2		2		6	3		4	5		2	24	
Synocha		2										2	
Synochus		1			6							7	
Tabes Mesenterica		1					19		4		2	26	5
Typhus	1	2			1	8			2			14	3
—— mitior					10							10	1
Variola	2		1	1	2	1	9	1	3		5	25	1
Varicella	1	7	1		4	1		2	4	4		24	
Vermes	1	5	1	9	1	3		5	6	4		35	
Vertigo	5	4	4	3	2		4	8	4	5	3	42	
Urticaria	3	12	3	2	2	2	2	1	3	1	2	33	
Total No. of Cases	411	374	143	253	424	264	415	323	329	289	145	3326	
Total of Deaths													90

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

AN ABSTRACT from the REGISTER *of these* DISEASES *of* LONDON, *presumed to originate in, or be influenced by, the State of the* ATMOSPHERE, *with a* DIURNAL REFERENCE *to the* METEOROLOGICAL TABLE.

METEOROLOGICAL TABLE,

From the 20th of JUNE, to the 19th of JULY, 1814.

M.	Therm.	Barom.		Hygrom. Dry.	Hygrom. Damp.	Winds.	Atmos. Variation.	D.
	53 64 52	29^{7}		6 10 3		NW..	C..F.C..	20
	52 59 55	29^{8}		10 6	2	N..	C...C...C..R.. in N	21
	53 55 53	29^{9}	30		1 1 2	NW...	C...R..C...	22
	53 57 54	30^{1}	^{2}		3 2	NW..	C...C...R.	23
◐	53 56 53	30^{2}	^{3}	2 1		nw..ne.	R.C..C..	24
	53 59 56	30^{3}	^{2}	3 4 2		NE...	C...F.C...	25
	53 58 54	30^{1}		1 1		NW..	C...R..R.	26
	53 59 55	30^{1}		1 3	2	NW..	R.C..C..	27
	59 67 59	30	29^{9}	5 3	1	NE.	F...F..F..	28
	56 75 64	29^{9}	30	3 7	1	SE.W..	F..F...F..R.	29
	62 78 63	30	29^{9}	2 35 23		NW..	C..F....F..	30
	60 69 58	29^{9}		9 22 14		NW..	C.F..F....	1
○	57 70 60	30		11 30 13		NW..	F....F....F....	2
	58 75 64	30	30^{1}	16 34 22		W..S.	F....F....F....	3
	64 76 64	30	30^{1}	15 27 16		NW.	F...F....F...R.. in N	4
	63 77 66	30	30^{1}	5 24 15		W.	C...F...F....	5
	60 75 64	30^{1}	30	10 32 19		W..	F..F....F....	6
	65 74 66	29^{9}	30	14 26 15		SW...	F...F....R.	7
	64 69 63	29^{9}	30	10 6 2		SW..	R.R...C...	8
	63 66 63	29^{8}			5 1 4	SW...	R..R.C..	9
◑	64 64 58	29^{8}			7 5 6	S.	R..R...C.	10
	63 65 58	29^{9}			9 12 4	SW..	F..R...C..	11
	60 67 61	30^{1}		16 9	2	NW..	F..F..C..	12
	60 66 57	30^{2}	29^{9}	8 22 16		NW..	F.F...R.F..	13
	54 63 57	29^{9}	^{8}	9 10 7		NW..	F...F..C..	14
	60 35 61	29^{7}	^{6}	9 6 1		NW.	F.R..C.R... in N	15
	60 64 58	29^{7}	^{9}		2 7 1	E.	R.R..C.	16
●	56 67 61	30		7 2	2	E..	C..F..F..R. in N	17
	58 66 60	29^{9}		7 4	1	W.	R.F...F..	18
	58 67 62	29^{9}	^{8}	1 11 4		NW..	C..F...F..	19

D.	Asthma.	Apoplexia.	Bronchitis.	Cholera.	Cephalalgia.	Colica.	Catarrhus.	Cynanche.	Cynanche Trachealis	Dysenteria.	Diarrhœa.	Dyspnœa.	Erysipelas.	Febres.	Hæmoptoe.
20	3	2	—	1	8	1	7	2	1	—	9	2	—	8	—
21	2	1	—	2	3	2	10	9	—	—	2	1	—	5	—
22	3	—	1	—	3	3	6	5	—	1	7	1	5	9	—
23	5	—	1	2	4	—	9	3	—	2	2	—	3	6	1
24	3	—	—	4	3	2	6	4	—	—	7	2	2	5	1
25	1	—	1	1	2	1	7	4	—	—	7	2	2	6	1
26	2	2	—	4	3	1	7	—	—	—	3	1	2	3	1
27	2	1	—	—	—	—	6	3	—	2	2	2	2	8	—
28	2	1	—	4	1	2	2	5	—	2	1	3	6	12	1
29	3	—	—	1	2	—	2	6	—	—	4	—	1	5	—
30	—	2	—	1	4	3	8	3	—	1	3	—	2	6	2
1	1	—	—	4	—	3	8	4	—	3	4	1	—	6	—
2	1	—	—	—	1	1	6	7	—	—	4	1	4	4	1
3	1	2	—	1	2	3	3	2	—	—	8	—	2	9	—
4	1	1	—	2	3	2	4	6	—	1	5	1	1	5	1
5	—	—	1	8	2	3	6	3	—	—	5	1	1	5	1
6	—	—	2	1	2	1	6	5	1	2	4	—	—	4	1
7	3	—	—	2	—	1	4	4	—	—	3	—	1	3	1
8	1	1	—	2	4	1	8	5	—	—	8	—	1	9	—
9	—	—	—	3	—	1	2	3	1	—	2	2	—	7	—
10	1	—	—	2	—	—	5	1	—	2	2	—	3	5	—
11	—	—	—	1	3	1	3	3	—	1	7	—	1	7	3
12	2	—	—	—	4	2	8	4	—	—	1	1	2	5	—
13	4	—	—	1	4	3	8	6	—	2	10	3	1	5	—
14	2	—	1	—	3	—	4	4	—	—	4	1	1	4	1
15	—	1	—	2	4	2	4	4	—	—	3	—	—	8	1
16	—	—	—	—	4	3	2	—	—	—	3	1	2	5	—
17	—	—	—	2	—	1	3	—	—	1	2	—	1	9	—
18	—	—	2	—	1	2	4	2	—	—	3	3	1	4	—
19	1	1	—	—	2	2	5	4	—	1	6	2	1	6	—
No. of Cases...	44	15	9	51	67	47	163	111	3	21	131	31	48	183	17
Fatal..........	4	6	2	—	—	—	2	—	1	—	—	—	1	3	1

D.	Morbi Biliosi.	Ophthalmia.	Paralysis.	Phthisis.	Pertussis.	Pneumonia.	Podagra.	Rheumatismus.	Rubeola.	Scarlatina.	Typhus.	Variola.	Varicella.	Vertigo.	Urticaria.
20	3	4	—	3	—	5	1	8	4	—	—	1	—	2	—
21	6	3	2	1	2	5	—	5	3	3	—	2	—	2	1
22	3	2	1	—	5	3	—	8	2	—	3	1	1	3	—
23	12	3	1	3	—	5	1	6	4	—	1	—	—	1	1
24	4	5	—	2	2	3	3	[illegible]	6	2	—	4	2	4	—
25	9	3	2	3	1	5	2	9	4	1	2	2	—	3	2
26	10	1	2	—	—	2	2	3	4	—	1	—	3	2	1
27	8	2	—	—	1	—	—	10	6	2	—	—	1	—	2
28	4	4	2	—	—	2	2	10	5	1	2	3	2	2	3
29	6	6	—	1	2	—	1	3	4	2	—	1	1	—	2
30	5	2	—	2	1	4	1	4	10	1	2	1	1	2	3
1	5	1	1	3	2	5	1	7	1	—	1	—	2	—	—
2	8	4	—	3	2	5	—	7	6	2	—	—	—	—	—
3	5	9	1	—	1	2	1	8	5	—	—	—	1	—	2
4	8	3	—	1	—	3	2	4	6	—	—	2	1	3	2
5	9	4	—	1	—	1	—	5	3	1	—	—	—	1	—
6	8	3	1	—	1	4	—	6	—	—	1	—	1	—	3
7	9	—	—	1	—	1	—	3	4	—	1	1	—	2	—
8	7	1	—	1	3	1	1	6	4	1	—	—	1	3	2
9	8	—	2	1	1	3	2	5	7	2	—	1	1	1	—
10	9	1	—	—	—	2	—	3	5	—	—	—	1	—	1
11	6	—	—	—	—	—	1	4	6	1	—	1	—	1	—
12	10	2	—	—	—	1	—	6	4	1	1	1	1	2	—
13	9	5	1	1	3	—	1	6	6	2	2	—	—	2	2
14	8	5	2	1	—	1	—	3	—	—	3	—	1	1	—
15	5	—	—	—	—	2	—	6	1	2	—	—	—	—	2
16	5	1	2	4	—	—	2	7	7	2	—	—	2	2	2
17	6	2	—	—	—	—	—	4	—	2	—	—	—	1	—
18	9	5	—	—	—	—	—	6	5	—	—	4	1	2	1
19	4	2	1	1	—	6	—	4	6	—	4	—	—	—	1
No. of Cases...	205	83	21	33	27	71	24	171	128	28	24	25	24	42	33
Fatal..........	—	—	3	12	—	5	—	1	1	—	4	1	—	—	—

Princes Street, Cavendish Square.

Total of Cases,...1880. Total of Deaths,...42.

Quantity of Rain, from the 20th of June to the 19th of July, 63-100 of an inch.

BILL OF MORTALITY *from June 21st to July 19, 1814.*

CHRISTENED.	June 21-28.	July 5.	July 12.	July 19.
Males..........	163	196	227	239
Females.........	140	199	171	214
	303	395	398	453
Total......1549.		Decrease......391.		

BURIED.	June 21-28.	July 5.	July 12.	July 19.
Males..........	135	160	129	144
Females.........	134	158	109	139
	269	318	238	283
Total......1108.		Decrease......343.		

OF WHOM HAVE DIED,

	June 21-28.	July 5.	July 12.	July 19.
Under 2 Yrs....	81	111	79	93
Betw. 2 & 5...	29	34	33	27
5 & 10...	9	9	11	16
10 & 20...	3	17	6	15
20 & 30...	17	25	15	20
30 & 40...	26	23	15	23
Betw. 40 & 50...	26	33	19	29
50 & 60...	31	22	20	23
60 & 70...	21	21	18	18
70 & 80...	14	20	18	16
80 & 90...	12	3	4	3
Small Pox......	13	13	13	16
Total..........55.				
Measles.........	14	16	15	17
Total..........62.				

THE temperature of this interval has, in a considerable portion of the early part, been cold and unpleasant; and in the latter part of June, the remarkable deficiency of sun was exceedingly detrimental to the progress and ripening of fruits. In a considerable portion of July, there has been a sufficiency of Summer heat, which occasionally has been oppressive.

The effects of diseases during this period offer little that is remarkable. The aggregate number will henceforth diminish, till the commencement of Winter warns the votaries of health or pleasure to return to the metropolis. Complaints of the bronchiæ and pulmonary organs are rapidly declining; but the number of deaths from Phthisis is unusually large. Pertussis is also less frequent: Rubeola nearly the same as in our last Report; but it is uncommonly mild; there being one death only in 128 cases, and that, as in most of the fatal cases that have been recorded, was under the same unfavourable circumstance of situation.

Asthenic cases appear to be rendered more permanent during the heat of Summer. Determination to, and increased discharges from, the bowels are beginning to prevail, and, in many instances, with evident advantage to the constitution. Fevers have become frequent; and many of them possess so much of a typhoidal character, as to seem only to require wine, bark, and heated rooms, in their early stages, to render truly dangerous. A cathartic, with small doses of antimonials, given within the first three days, have generally stopped the progress of the fever. The affection of the head has been remarkably

slight, and the tongue seldom foul. In one case, where the fever had existed five days before application for relief, a spontaneous increased discharge from the bowels was permitted to continue for ten days with evident benefit; depressing the heat of the skin by cold water lotions. A case of Psoriasis was truly inveterate, and appeared to be attributable to sparing and poor diet.

Nineteen cases of Tabes, in the 7th district, will appear a great proportion; but the majority occurred in a Charity for the reception of the diseased and distressed: two of them were accompanied with Rachitis. This remark will also explain the greater number under Scabies than in any other district.

A fatal case of Hydrophobia, in the present Register, was that of a boy, the particulars of which will be in our next Number. The case of Bronchocele is in a young woman of a very delicate habit, 23 years of age: it has been encreasing about two years: she has commenced taking burnt-sponge for the cure.

The case of Roseola Vaccina occurred on the ninth day after vaccination, in a very stout healthy infant; and disappeared without the employment of any remedies, except a gentle purgative, in fifteen hours.

Three of the cases of Miliaria occurred in one family; and the children were successively taken ill, as if the disease had been communicated by infection: cooling saline purgatives, with a vegetable diet, were the only means employed to abate the disease, which disappeared in all the cases in three days.

The case of Ichthyosis occurred in a young lady of eighteen years of age. The cheeks only were affected, the eruption on each side being united by a narrow slip of it passing across the nose directly over the ossa nasi. The origin of the complaint was attributed to a severe fever which the patient had three years ago, since which the eruption had continued without almost any remission of its violence, although she had been under the care of several very eminent physicians and general practitioners in Scotland. The only internal medicine she had taken was some mercurial preparation, which was soon discontinued; but a great variety of external applications had been employed, under all of which, however, the symptoms seemed rather to increase than abate. When the Reporter first saw her, he found the cheeks and the bridge of the nose covered with dark coloured scabs, very much resembling fish scales. They could be easily detached, but the skin below appeared red and rough; and the patient stated, that after being detached, they were quickly reproduced: they had even once been altogether shaved off without any permanent benefit. The general habit of the young lady was delicate, the extremities cold, the pulse feeble and languid, the lips dry; and she complained of frequent head-aches, and an indescribable uneasy sensation of the stomach, from which she had occasionally very acid eructations. The bowels were nevertheless extremely regular, and although the catamenia was scanty, yet the period was never passed.

Having ascertained the above circumstances, Dr. Bateman saw the patient with the Reporter, and agreed that the eruption bore more the appearance of Ichthiosis than of any other cutaneous affection; but was remarkable from its limited extent, and its attacking that part of the habit which generally remains free, when the whole body besides is covered with the eruption. It was agreed that all external applications should be discontinued, except frequent ablution with warm water; and that five drops of the Liquor Arsenicalis in a cupful of Decoction of Dulcarmara should be taken three times a day. After proceeding with this plan for about a fortnight, it was found that the irritability of the stomach was too great to prevent its continuance; and the cheeks, which were before but little inflamed, became excessively so. The arsenical solution was therefore discontinued; and as she did not again see Dr. Bateman, the Reporter, after clearing the stomach

and bowels, ordered her to take thirty drops of the Liquor Potassæ in a large cupful of Decoction of Bark three times a day, with small doses of Sulphur, Nitre, and Carbonate of Soda, combined, every night at bed-time, continuing the ablutions with warm water.—Under this plan, which has been pursued for ten days only, the nose is already cleared, and the scales are beginning to separate spontaneously from the cheeks: but how the case may terminate is yet to be determined.

The fatal case of Erysipelas was of the face, connected with Typhus. Examinations, *post mortem*, proved in a case of Anasarca, there was also Hydrops Pericardii; in one of Asthma, an extraordinary dilatation of the vesicles of the lungs; and in another of Epilepsy, there was an extravasation on the surface of the brain.

DR. PEARSON having delivered three Courses of Lectures, annually, for the last twenty-six years, on the Theory and Practice of Physic, on Therapeutics with the Materia Medica and Medical Botany, as well as on Chemistry, proposes in future to confine himself to the department of the Practice of Physic with the laws of Animal Œconomy.—This Course will commence at No. 9, in George Street, Hanover Square, as usual, the first week of October, at nine in the morning.

The Lectures in the other departments, viz. on the Therapeutics with Materia Medica; on Clinical Practice with Demonstrative Pathology; on Medical Jurisprudence; and a full Course of Chemistry, will be given at the Theatre in Windmill Street, by the united labours of DR. ROGET, DR. HARRISON, and DR. JOHN DAVY.

DR. SQUIRE will, on Thursday the 18th of August, begin a Course of Lectures on the Theory and Practice of Midwifery and the Diseases of Women and Children.

DR. HAIGHTON's Summer Course of Lectures on Midwifery will commence at Guy's Hospital on Thursday, Aug. 4, at 8 o'clock in the morning.

Monthly Prices of SUBSTANCES *employed in* PHARMACY.

		S.	D.
Acaciæ Gummi elect.	lb.	4	0
Acidum Citricum		28	0
— Benzoicum	unc.	6	6
— Sulphuricum	P. lb.	0	8
— Muriaticum		1	0
— Nitricum		2	6
— Aceticum	cong.	4	6
Alcohol	M. lb.	4	6
Æther sulphuricus		16	6
— rectificatus		12	0
Ærugo	lb.	9	0
Aloes spicatæ extractum		6	0
— vulgaris extractum		5	6
Althææ Radix		1	3
Alumen		0	5
Ammoniæ Murias		3	0
— Carbonas		3	6
Amygdala dulcis		5	9
Ammoniacum (Gutt.)		8	0
— (Commun.)		3	6
Anthemidis Flores		2	3
Antimonii oxydum			
— sulphuretum		1	0
Antimonium Tartarizatum		5	6
Arsenici Oxydum		1	0
Assafoetida Gummi-resina		6	6
Aurantii Cortex		4	6
Argenti Nitras	unc.	6	9
Balsamum Peruvianum	lb.	30	0
— Tolutanum		20	0
Benzoinum elect.		10	0
Calamina præparata		0	4
Calumbæ Radix		3	6
Cambogia		12	0
Camphora		9	6
Canellæ Cortex		3	6
Cardamomi Semina opt.	lb.	12	0
Cascarillæ Cortex		5	6
Castoreum	unc.	5	0
Catechu Extractum	lb.	2	4
Cetaceum		3	6
Cera alba		4	0
— flava		3	6
Cinchonæ cordifoliæ Cortex (yellow)		8	6
— lancifoliæ Cortex (quilled)		10	6
— oblongifoliæ Cortex (red)		16	0
Cinnamomi Cortex		18	6
Coccus (Coccinella)	unc.	4	6
Colocynthidis Pulpæ	lb.	9	0
Copaiba		7	6
Colchici Radix		3	6
Croci stigmata	unc.	4	6
Cupri sulphas	lb.	1	6
Cuprum ammoniatum		14	6
Cuspariæ Cortex		4	6
Confectio aromatica		10	6
— Aurantii		3	6
— Opii		6	6
— Rosæ Caninæ		2	6
— Rosæ Gallicæ		2	0
— Sennæ		1	8
Emplastrum Lyttæ		7	6
— Hydrargyri		3	0
Extractum Cinchonæ	unc.	3	0
— Cinchonæ resinos.		5	0
— Colocynthidis		2	6
— Colocynthidis comp.		1	6
— Conii		0	8
— Gentianæ		0	6
— Glycyrrhizæ	lb.	4	6
— Hæmatoxyli	unc.	0	8
— Humuli		0	8

		S.	D.
Extractum Hyosciami	unc.	1	0
—— Jalapæ · *2s. 0d.*	Res.	3	6
—— Opii		3	6
—— Papaveris		1	0
—— Rhæi		2	6
—— Sarsaparillæ		1	0
—— Taraxaci		0	8
Ferri carbonas	lb.	0	9
— sulphas		1	3
Ferrum ammoniatum		4	0
—— tartarizatum		4	6
Galbani Gum-resin.		10	0
Gentianæ Radix		1	0
Gusiaci Resina		6	6
Hydrargyrus purificatus		5	6
Hydrargyri Oxymurias	unc.	0	8
—— Submurias		0	9
—— Nitrico-Oxydum		0	8
—— Oxydum Cinereum		1	4
—— Oxydum rubrum		5	6
Hydrargyrus præcipitatus albus		0	9
Hydrargyri Sulphuretum rubrum		0	8
Hellebori nigri Radix	lb.	2	6
Ipecacuanhæ Radix		22	0
—— Pulvis		24	0
Jalapæ Radix		6	3
—— Pulvis		7	0
Kino		12	0
Liquor Plumbi Acetatis	M. lb.	1	4
— Ammoniæ		1	6
Linimentum Camphoræ comp.		6	0
Lichen Islandicus	lb.	1	8
Lyttæ		14	0
Magnesia		9	0
Magnesiæ Carbonas		2	6
—— Sulphas, opt.		1	6
Manna optima		8	0
— communis		5	6
Moschus pod, *26s.*	in gr. unc.	36	0
Mastiche	lb.	6	6
Myristicæ Nuclei		24	0
Myrrha elect.		7	0
Olibanum		3	0
Opoponax		26	0
Opium (Turkey)		36	0
Opium (East India)		34	0
Oleum Amygdale	lb.	4	9
— Anisi	unc.	2	9
— Anthemidis		6	0
— Cinnamomi Cassiæ		8	0
— Caryophilli		5	6
— Cajuputi		6	6
— Carui		1	9
— Juniperi Ang.		4	0
— Lavendulæ		4	0
— Lini	cong.	7	6
— Menthæ piperitæ	unc.	5	0
— — viridis Ang.		5	0
— Olivæ	cong.	26	0
— Olivæ secundum		16	0
— Pimentæ	unc.	5	0
— Ricini optim,	(per bottle)	10	6
— Rosmarini	unc.	0	9
— Succini *2s. 4d.* ——	rect.	4	0
— Sulphuratum	M. lb.	1	4
— Terebinthinæ		1	9
— — rectificatum		2	3
Papaveris Capsulæ	(per 100)	3	0

		S.	D.
Plumbi Carbonas	lb.	0	8
— Superacetas		2	6
— Oxydum semi-vitreum		0	8
Potassa Fusa	unc.	0	9
— cum Calce		0	6
Potassæ Nitras	lb.	1	0
— Acetas		8	6
— Carbonas		1	6
— Supercarbonas		4	6
— Sulphas		1	4
— Sulphuretum		2	6
— Supersulphas		0	6
— Tartras		3	6
— Supertartras		1	10
Pilulæ Hydrargyri	unc.	0	9
Pulvis Antimonialis		0	8
Resina Flava	lb.	0	5
Rhæi Radix (Russia)		34	0
—— (East India)		14	0
Rosæ Folia		10	0
Sapo (Spanish)		2	6
Sarsaparilla Radix		7	0
Scammoneæ Gum-Resina	unc.	2	6
Scillæ Radix siccat	lb.	5	6
Senegæ Radix		4	0
Sennæ Folia		7	0
Serpentariæ Radix		24	0
Simaroubæ Cortex		4	6
Sodæ Boras		4	8
— Sulphas		0	10
— Carbonas		7	0
— Subcarbonas		1	6
— — exsiccata		5	0
Soda tartarizata		3	0
Spongia usta		24	0
Spiritus Ammoniæ	M. lb.	4	0
—— —— aromaticus		4	0
—— —— fœtidus		4	0
—— —— succinatus		5	0
— Cinnamomi		2	6
— Lavendulæ		4	6
— Myristicæ		3	6
— Pimentæ		3	6
— Rosmarini		4	0
— Ætheris Aromaticus		6	8
— — Compositus		6	6
— — Nitrici		4	0
— — Sulphurici		6	6
— Vini rectificatus	cong.	28	0
Syrupus Papaveris	lb.	2	0
Sulphur		0	3
— Sublimatum		0	8
— Lotum		1	0
— Præcipitatum		1	0
Tamarindus opt.		2	6
Terebinthina Vulgaris		0	10
Terebinthina Canadensis		6	6
Terebinthina Chia		9	0
Tragacantha Gummi		9	6
Valerianæ Radix		1	10
Veratri Radix		1	6
Unguentum Hydrargyri-fortius		5	6
—— —— Nitratis		2	8
—— —— Nitrico-oxy.		3	0
Uvæ Ursi Folia		2	6
Zinci Oxydum		6	0
— Sulphas purif.		2	6
Zingiberis Radix opt.		2	6

Prices of New Phials per Gross.——8 oz. *70s*.—6 oz. *58s*.—4 oz. *47s*.—3 oz. *43s*.—2 oz. and 1½ oz. *36s*.—1 oz. *30s*.—half oz. *24s*.——The London Glassmen allow 10 per Cent, ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second-hand Phials, cleaned, and sorted.——8 oz. *46s*.—6 oz. *41s*.—4 oz. *36s*. 3 oz. *30s*.—2 oz. and all below this size, *23s*.—Three months credit.

English Hirudines, *9s*. per dozen at Covent Garden Market.

Professor Mangilli has published a Memoir, on the Action of the Venom of the Viper, which was read before the Italian Institute. He is of opinion, that the remedies at present used by the Italian Physicians to counteract its effects, are entirely useless, and that Sal Ammoniac is the best and most efficacious medicine that can be administered in such cases.

Dr. Morrichini is assidulously prosecuting his Experiments, tending to demonstrate the existence of a magnetico-electric property in the violet-coloured solar ray.

MONTHLY CATALOGUE OF BOOKS.

An Index to the Anatomical, Medical, Chirurgical, and Physiological Papers, contained in the Transactions of the Royal Society of London, from the commencement of that Work to the End of the Year 1813, Chronologically and Alphabetically arranged. 4to. Callow.

Professor Davy's Interesting Inquiries, containing the Relation of Galvanism to Living Action, illustrated in the Removal of Topical Complaints by the Application of Simple Galvanic Circles; and recommended as an useful Assistant Branch of Medicine. By M. Yatman, Esq. 8vo. Callow.

A Manual of Mineralogy. By A. Aikin, Secretary to the Geological Society. 12mo. Longman and Co.

An Essay on the Venereal Diseases, which have been confounded with Syphilis, and the Symptoms which exclusively arise from that Poison. Illustrated by Drawings of the Cutaneous Eruptions of true Syphilis, and the resembling Diseases. By Richard Carmichael, M.R.I.A. President R. C. S. in Ireland, &c. Dublin.

WORKS IN, AND PREPARING FOR, THE PRESS, &c. &c.

Dr. Jameson will soon publish a Pamphlet on the Properties of the Cheltenham Waters.

Dr. Merriman is printing a new and enlarged Edition of the Synopsis of the various Kinds of Difficult Parturition.

Mr. Singer intends publishing annually a Supplement to his Elements of Electricity and Electro-Chemistry.

Mr. H. Edmonson, of Newcastle, is preparing Hints on Hydrophobia.

Dr. Roche, of Paris, has finished a translation into French of Dr. Armstrong's poem on the Art of Preserving Health, which will shortly be published in that city.

INDEX INDICATORIUS.

The Engraving not being finished in time, we are necessarily compelled to postpone Mr. Ring's *case of* Internal Hernia.

The favors of Dr. Allvey, Mr. Oldknow, Mr. Alexander, Mr. King, Mr. R. Bellingham, Mr. Newman, Juvenis, &c. *are received.* Mr. Kerrison's *case of* Hydrophobia *shall appear in our next Number.*

We are always happy to see a spirit of inquiry in youth, which, if encouraged and cultivated, with very moderate abilities and opportunity, is sure to form good and useful practitioners in medicine. With such sentiments we view the recent application of Studens Oxoniensis, *who, if he diligently pursue the course of reading he has began, with the few opportunities of practical observation he may possess, will soon find the solution of his doubts and queries.*

Thanks are due for many works sent for reviewing; and for which we have not yet found room. We hope soon, by noticing them, to acquit ourselves of this part of numerous obligations.

Communications intended for insertion in the subsequent Number, should reach us before the 12th of the month. They are respectfully solicited, and should be addressed (free of expence) to Mr. Burrows, *Bloomsbury Square: by whom Books for the Review Department, Articles of Intelligence, &c. &c. will also be received.*